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Monterey, California



THESIS

THE EFFECT OF PCS POLICY CHANGES ON SURFACE
WARFARE OFFICER CAREER DEVELOPMENT

by

Robert H. Howe

December 1984

Thesis advisor:

P. R. Milch

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The Effect of PCS Policy Changes on Surface Warfare Officer
Career Development

by

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Lieutenant Commander, U.S. Navy
B.S., U.S. Naval Academy, 1972

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

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December 1984

ABSTRACT

This study conducted a critical review of professional development requirements in the Surface Warfare Community to maximize the use of increasingly scarce permanent change of station (PCS) funds. Seven network representations of career pathways were constructed to encapsulate the career paths Surface Warfare Officers (SWOs) actually pursue. Four focal points of professional development were determined to provide the basis for these pathways. These four are the major command tour, the commander command tour, the executive officer tour and the department head tour. Naval Officer Billet File data and information from the Naval Military Personnel Command's Officer Manning Plan model were used to determine the geographic locations and respective numbers of SWO billets. Officer Longitudinal Master File data were used to determine historical tour lengths of Surface Warfare Officers. Analyses were conducted for key developmental tours and for the type of tour assignment (sea or shore, and geographic location). The interrelationships between tour length, billet opportunity and selectivity are discussed. The above considered, two additional career pathways were developed which improve the efficiency of the SWO career path and potentially save PCS funds.

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I. INTRODUCTION

A. BACKGROUND

In commenting on the Department of Defense personnel budget request for Fiscal Year 1985, the Chairman of the House Defense Appropriations Subcommittee stated:

Permanent Change of Station travel is a recurring concern of this Committee. From fiscal year 1983 to fiscal year 1984 for only a 1.8 percent overall increase in Defense end strengths, there was a 3 percent increase in PCS moves and a 16 percent increase in PCS funding.

Annually since 1973, Congress has been asking more and tougher questions about DoD's management of the PCS budget which comprises approximately eight percent of the military's total personnel budget. One of their primary concerns is with tour lengths and their perception that officers are moved too frequently. The services contend that the essence of proper career development requires the progression of an officer through a sequence of challenging assignments or billets developing an officer's managerial and warfare competence [Ref. 1].

A vital component of the Navy's professional development concept which differs from the other services is sea-shore rotation. Since naval officers are required to serve at sea, transfers ashore at periodic intervals are necessary to retain quality personnel and share with the shore establishment expertise gained at sea. A large portion of the requirement to serve at sea belongs to the Surface Warfare Officer. The Unrestricted Line Officer Career Planning Guidebook describes the Surface Warfare Community as follows:

The Surface Warfare Community is composed of officers who are qualified in the surface warfare specialty, who man the surface ships of the Navy and whose goal is to command those ships. The Surface Warfare Officer (SWO) must, through a progression of competitive assignments, learn the fundamentals of engineering, weapons systems, and operational tactics [Ref. 2: p. 23].

The key point to note is that the Surface Warfare Officer is a sea-going warfare specialist, who in order to develop and hone his tactical and warfighting skills must serve at sea; that is what he is trained for and is his *raison d'etre*. For only in wartime will his skills and professional development be put to the ultimate test. Unmentioned above, but important nonetheless, are the shore assignments filled by the Surface Warfare Community. Here jobs in fields as varied as recruiting, midshipman training, postgraduate education, ship repair and overhaul, communications, logistics support, weapons systems design and financial management make up those areas where today's hard work contribute to both current and future readiness. The purpose of these jobs ashore is to support the fleet and to contribute to and aid in optimizing battle readiness. The sine qua non of the SWO personnel management system is to develop high-quality, experienced personnel capable of performing in current billets to ensure maximum readiness and preparing to excel in future billets. These personnel must be developed within the Navy structure. The means to achieve this end is the SWO career path, depicted in Figure 1.1.

Like any large organization, the structure of the officer corps of the Navy forms a pyramid which rises from a broad base of junior officers, through a relatively few flag officers to the Chief of Naval Operations. If there is to be a realistic flow of promotion up this pyramid, all who enter at the bottom cannot reach the top. Each officer does, however, have the same promotion opportunity as his/her contemporaries [Ref. 2: p. 4].

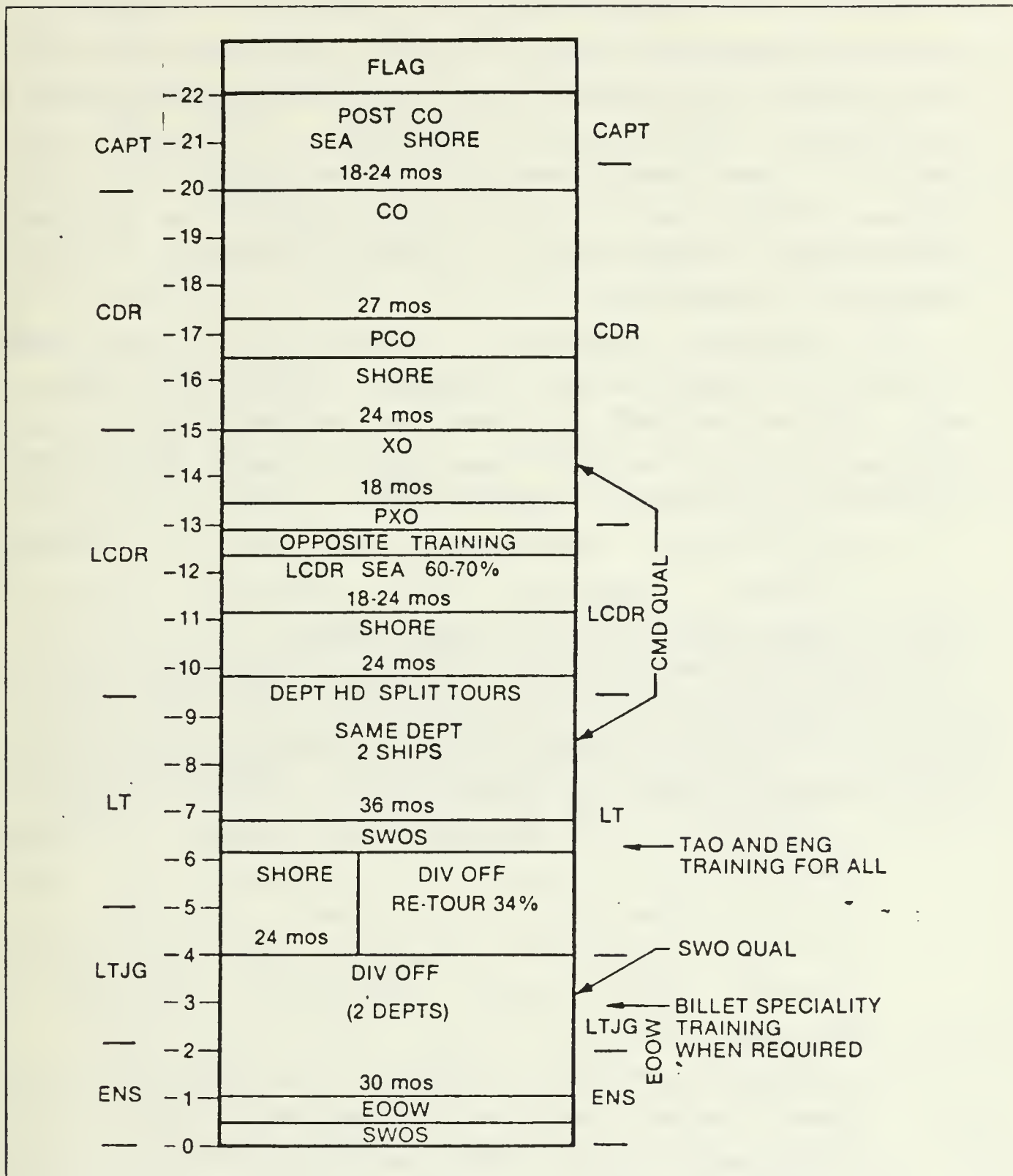


Figure 1.1 Surface Warfare Officer Career Path

This pyramidal structure is supplied by a closed personnel system with entry at the bottom and lateral trans-

fers into the system virtually non-existent. This requires the Navy's manpower system to be a "grow-our-own" corps of knowledgeable and professionally competent Naval officers to meet demands both current and future. Because inventory gains to meet requirements must ultimately be achieved through accessions to the bottom grade, a systematic, professional development of individual officers within the community is essential.

The perceived pinnacle of professional accomplishment, and goal of every Surface Warfare Officer, is command at sea. It is towards this end that the SWO career path has evolved. The basic career path has the following constraints considered inviolable:

1. the critical developmental sea tours are: division officer, department head, executive officer and commanding officer in that order;
2. the community cannot access more officers than it has bunks and billets for at sea;
3. the division officer tour must be preceded by the SWO (Basic) course of instruction;
4. completion of Department Head School is required before serving the initial Department Head tour, a list of these billets is included in Appendix B;
5. the total length of consecutive sea tours should not exceed three years (otherwise retention may decrease);
6. officers must have completed the critical developmental tours, and have significant fitness reports from them, prior to the convening of their selection board to the next pay grade.

The wisdom of these constraints has been borne out historically. Where competition is intense, successful tour completion speaks loudly and lack of a meaningful fitness report covering one of these critical tours works to an officer's detriment.

With this in mind, the assignment branch makes every effort to ensure that LTs have completed one department head tour; LCDRs have completed their executive officer tour; and that CDRs have completed their Commander Command tour. These constraints work two ways. In addition to determining how late an officer may commence a tour, it also determines how early a tour may start. The goal here is that officers are assigned to these critical jobs based on seniority first.

Official guidance concerning tour length policy is found in Military Personnel Assignments (DoD Instruction 1315.7), the Officer Transfer Manual (NAVPERS 15559) and the Officer Distribution Manual (NMPC Instruction 5400.1G). The latter states:

Officer tour lengths are established taking into consideration Office of the Secretary of Defense (OSD) policy, the needs of the service, professional career development and, where feasible, the desires of the individual. Other important factors taken into consideration are personnel inventory, number of ships/commands available or projected, future requirements, etc. These factors must be weighed, within fiscal constraints, to provide career patterns which develop the leadership and expertise required of officers in all sectors of our Navy [Ref. 3: p. 4-1].

B. EXECUTIVE DEVELOPMENT

There is consensus in the literature that the benefits of relocation and transfer are that personnel receive a broader experience base and are more aware of their organization's operations as a whole. It also permits an individual to be assigned where he is most useful. This dual purpose of training and management development is the core of executive development.

1. Civilian Executive Development

While the Navy with its sea-shore rotation policy and planned rotation system differs significantly from private enterprise, the goal for both is executive development. Arima [Ref. 4] found that civilian organizations today tend not to move their employees without a specific requirement. This finding was supported by Government Accounting Office research [Ref. 5] which determined that multi-national corporations generally reassign their executives only in response to specific requirements. It also reported that these corporations make extensive use of foreign nationals to fill their overseas positions.

Mahler [Ref. 6] offers that many developmental actions can't be accomplished unless begun early in an individual's career. He states that although a professional development program does not guarantee results, the lack of one will seriously threaten successful results. Peter Drucker, the dean of early management science, cautions that the worst thing an organization can do is to try and develop the hard-chargers and ignore the others. He warns that "10 years from now 80% of the work will be done by those left out" [Ref. 6: p. 162].

Never transferring employees may yield adverse effects. Pinder [Ref. 7] reports that so doing will not meet valid staffing needs or properly train employees. Hall and Hall [Ref. 8] are in concurrence, speculating that in the long run no movement leads to highly-trained and specialized personnel and with them obsolescence.

In the past many civilian companies expected their employees to transfer frequently; this was especially true in the 60's and early 70's. Since then, as costs and employee reluctance to move have increased, most major corporations have decreased their number of employee

transfers. Moves now are being made only when both present staffing needs and future development needs can be met simultaneously [Ref. 9].

No concrete evidence has been found to identify the optimal length of time a job should be held. Pinder [Ref. 7] found a shortage of research on the part of organizational behavior specialists into the transfer effects on both the people and the organizations involved. Little documentation was found concerning organizational effectiveness and the impact of transfer policies. In an attempt to define the optimal length of time a job should be held, Business Week [Ref. 10] stated that the first job assignment should be two to five years long unless experience was being gained in different functional areas. The article went on to conclude that subsequent job lengths should fall into the three to four year range. Taylor's findings [Ref. 11] that the average American labor force members change jobs every three to five years, seems to support this, as does the GAO study [Ref. 5] which determined that large corporations estimated the most desirable tenure in an assignment to be about four years. Hauser's findings [Ref. 12]. of a four and a half year tenure for the average corporate manager also support this.

2. Naval Officer Executive Development

The basic philosophy of job rotation and relocation in the military is to fulfill world-wide staffing requirements and provide for training and professional development. Markov Mikas [Ref. 13]. found that, not surprisingly, military personnel have more frequent changes of jobs than do civilians. Hauser stated "the typical Naval officer is seldom in a position long enough to master it" [Ref. 12: p. 461]. He went on to conclude:

In business, there is concentration on productivity . . . rotating individual managers through various positions to enhance their potential for promotion would be considered counter-productive, even frivolous. there is nothing in any known U.S. firm to compare with the services' propensity to give every officer with promotion potential a "staff and line" rotation in each grade from O-1 to O-8 in the course of 30 years [Ref. 12: p. 459].

Rezin [Ref. 14] agrees, stating that due to the Navy's frequent rotation policy, an officer does not have sufficient time to become proficient in a job before he is transferred. He also found this policy expensive, incurring additional training, lost time, and family hardship costs along with the accountable PCS costs.

The true value of longer tours may best be expressed by the current Vice Chief of Naval Operations. In a handwritten comment on a CNO Memorandum to increase CO tour lengths, Admiral Hayes wrote: "Higher readiness will accrue by having people in jobs longer who know what to do, i.e. a 6 month extension may double the time in command of someone who knows his job." The application of this principle would do much to reduce PCS moves and thus costs.

C. OBJECTIVES

This thesis represents an attempt to examine and analyze the Surface Warfare Officer career path to assess the feasibility of altering it to decrease the number or frequency of moves or both. The research methodology will initially center around investigations on two fronts. The first major step will be a determination of the experiences deemed necessary to enable officers to perform adequately in future billets. Specific tour types and lengths will be explored to provide additional information concerning training and/or education essential to these tours.

Once the number and frequency of vacancies have been determined to accommodate the required officer professional development, actual SWO movement patterns will be examined. This determination of historical, average tour lengths will be by tour type and pay grade. Subsequent to this, a comparison of the historical officer movement pattern with the minimum moves required for professional development will be carried out. The attempt here will be to account for and analyze the differences.

When completed, this thesis will have evaluated the current surface warfare officer career path to determine if a decreased frequency of moves and/or an increased efficiency of officer rotations will still provide the required professional development. If a change in tour length or alteration of the SWO career path is deemed warranted, it will be recommended.

The specific objectives of this research are to:

1. Examine the validity of the current Surface Warfare Officer career path by
 - a) establishing career developmental focal points;
 - b) incorporating SWO career path constraints; and
 - c) reviewing the desired assignment selectivity (tour opportunity) at each successive tour leading to those focal points.
2. Determine the geographical locations of the billets, both afloat and ashore, a Surface Warfare Officer would be expected to fill in accordance with the career path.
3. Examine the feasibility of linking successive tours together to minimize geographical relocation, thereby reducing PCS costs.
4. Utilizing this geographical billet information, establish a methodology to assess the effects of tour length changes and the tradeoffs with career development.

5. Recommend improvements to the SWO career path which will enhance professional development, holding PCS costs constant, or reduce PCS costs maintaining the same level of SWO professionalism.

II. PERMANENT CHANGE OF STATION MOVES

A. BACKGROUND

The extensive rotation of Navy Surface Warfare Officers among various job assignments is a by-product of the Navy's need to meet manpower requirements and personnel management objectives. The need for rotation arises because the Navy is composed of several hundred ships and thousands of shore stations spread throughout the world. The first step in a discussion of Permanent Change of Station (PCS) moves is to define the term and introduce the six categories of PCS moves.

A PCS move is defined as the transfer of a member from one permanent duty station to another permanent duty station (for duty of more than six months or instruction of twenty weeks or more). The categories of PCS moves are described in Table 1. Of note, but peripheral to the subject of PCS cost control, are the numerous entitlements covered by a PCS move. These are itemized in Appendix C.

The majority of PCS moves are involved with accessing people into the Armed Forces, later separating them from military service or rotating them to or from overseas billets. In FY 1983, almost 84 percent of PCS moves and 83 percent of their costs were associated with accession, separation or overseas (rotational) moves. The number of accession and separation moves are not affected by rotation policy. In a 5 January 1983 letter to the Chairman of the House Armed Services Committee, the Assistant Secretary of Defense for Manpower, Reserve Affairs and Logistics discussed the DoD policy on rotational moves. In part he wrote:

TABLE 1
PCS Move Categories

ACCESSION MOVE: Movement from home or place of acceptance of commission to first permanent duty station.

SEPARATION MOVE: Movement from the last permanent duty station (regardless of location) to home of record (or selection).

ORGANIZED UNIT MOVE: Movement resulting from a change of homeport/homeyard of a ship or staff mobile unit or from the relocation of a shore based activity.

ROTATIONAL MOVE: Movement between permanent duty stations involving transoceanic travel when neither duty station involves an assignment to duty of more than 6 months or under instruction of 20 weeks or more. This includes all transoceanic travel regardless of training involvement.

TRAINING MOVE: Movement to or from a training assignment of 20 weeks or more duration at one activity that does not involve transoceanic travel.

OPERATIONAL MOVE: Movement between permanent duty stations not involving transoceanic travel when neither duty station involves an assignment to duty less than 6 months or duty under instruction of 20 weeks or more.

The number of rotational moves is a direct function of programmed overseas strength levels and tour lengths. Overseas strength levels are established based on military and political considerations. Tour lengths for each overseas location are prescribed by Department of Defense Directive based on the characteristics of each location and on whether or not a member is accompanied by dependents. Prescribed tour lengths at relatively desirable locations are 36-48 months when accompanied by dependents and 18-24 months when without dependents. Tour lengths at less desirable locations are necessarily shorter. However, when the conditions change at these less desirable locations, such as an upgrade or expansion of facilities, the tour is lengthened. The objective is for all personnel assigned overseas to complete the prescribed duty tour for the location in which they are assigned [Ref. 15: p. 1].

B. PERMANENT CHANGE OF STATION STUDIES

To evaluate the magnitude of the Navy's problem with respect to PCS moves several studies have been conducted. Discussed in a Naval Personnel Research and Development Center PCS factsheet was a 1982 study reviewing retours (subsequent assignments in the same geographical location) that found Navy retour rates were 18 percent in FY 1980 and 32 percent in FY 1981. That study concluded that the Navy's billet structure limited the ability to expand the use of retours. A later survey, again discussed in the NPRDC factsheet, reviewed FY 1983 results and found that in areas of large fleet concentrations the retour rates were significantly higher, namely 50 percent in both San Diego and Norfolk. Like its predecessor this study too determined that the Navy was operating near its capacity to retour.

In March 1983 a DoD PCS Policy Planning Group with four service participation was established to review PCS-related policy for possible savings and increased effectiveness. It discovered that the Navy had the lowest rate of OPS/ROT moves of all the services and also the greatest annualized decrease (2.8%) over six years [Ref. 16: p. 20].

One of the reasons for this may be recent Navy initiatives to reduce PCS moves. Included among these has been the active solicitation of tour extensions by the Naval Military Personnel Command and the SWO split-tour policy which has limited moves of department heads to follow-on department head tours on the same coast and even same home-port in about 65 percent of the cases. Also included was the reduction of all pipeline training enroute to sea duty assignments by approximately one-third. To accomplish this all of the professional development training courses were streamlined in length. These included the SWO (Basic) course, Department Head School and the Prospective Executive

Officer course. This savings in SWO man-years alone amounted to an annual officer inventory gain of forty five and a half.

Efforts such as these have led the GAO to state to Congress that "In view of the attention the Department of Defense has given PCS issues, often at the prompting of the Congress, there may be limited opportunities for further major funding reductions" [Ref. 17: p. 1]. Although this may be the case, the Navy is continuing to review its PCS management efforts to ensure that maximum efficiency and dollar effectiveness are attained.

It is significant to note that reduction of PCS moves has been primarily for budgetary reasons. As efforts to cut the burgeoning national budget deficit intensify, it will be important to avoid the establishment of detailed, restrictive DoD PCS policies. If the budgetary problem is resolved by PCS funds cuts made in a vacuum, "the policies involved may result in less than optimum solutions considering all goals and objectives" [Ref. 18: p. 10,11].

C. CONTROLLABILITY OF MOVES

A critical aspect in the discussion of PCS funds is the actual controllability of the number of moves and hence the costs of moves in each category. Of the six categories of moves discussed in Table 1, three are considered distribution policy-driven moves and are controllable. The three remaining types of moves are considered mandatory moves and are considered uncontrollable.

The three controllable move categories are operational, rotational and training. All three are based on tour lengths specified as part of the SWO career path. These tour lengths determine the flow rate of officers through billets and billet opportunity. The three mandatory move

categories are accession, separation and organized unit moves. Accession moves are made in response to projected separation moves and to support the programmed growth in officer end strength. Unit moves in the Navy are largely due to ship overhauls or to geographical realignment of fleet structure for readiness purposes. Due to their uncontrollability, accession, separation and unit moves will not be included in this study.

D. SWO PCS MOVE DATA

Surface Warfare officer PCS data for the four years ending with FY 1984 were obtained from the Fiscal Management Branch (NMPC 463) of the Naval Military Personnel Command. These are displayed in Table 2. Based on this data average PCS costs by type of move are:

1. Operational -- \$2718.
2. Rotational -- \$7883.
3. Training -- \$3038.

TABLE 2
Surface Officer Move and Cost Data
for FY 1981 - FY 1984

<u>Type of Move</u>	<u>Number of Moves</u>	<u>Percent</u>	<u>Cost (1,000s)</u>	<u>Percent</u>
Operational	11,276	51	26,137	34
Rotational	3,726	17	29,373	38
Training	7,064	32	21,462	28
Total	22,066		76,973	

The overall average move cost is \$3488. These figures may be used if corrected for inflation to compute the cost impact of a tour length change.

E. REQUIREMENTS VERSUS PROFESSIONAL DEVELOPMENT

The use of officer rotation originates from two principal concerns: filling manpower requirements and providing for professional development. While the two are inextricably related, the Officer Transfer Manual states that "Manpower-personnel policies pertaining to the officer corps, are driven by requirements." This is as it should be, professional development is the means by which officers are trained and gain experience to fill the needs of the Navy expressed through the approved officer billet file. This study assumes this billet file is valid.

The following chapter will look at professional development in the SWO community and the attendant issues involved.

III. SURFACE WARFARE OFFICER PROFESSIONAL DEVELOPMENT

Before assessing the efficiency of the Surface Warfare Officer career path, it is important to understand the basic nature of the path and the major professional milestones inherent in it. This will serve as a prelude to a discussion of the Operational Technical Managerial System (OTMS) Guidelines and its growing importance to the Navy and to individual careers with respect to subspecialty development and utilization.

A. THE SWO CAREER PATH

The essence of a SWO Career is a measured progression through a series of training, experience and application tours "...with command at sea or ashore, as the ultimate goal" [Ref. 2: p. vii]. The foundation of today's SWO community is in the programmed development of its junior officers.

All officers who enter the Surface community do so via a sixteen and a half week intensive course of instruction taught either in Newport, Rhode Island or Coronado, California. This course covers a wide range of professional areas designed to provide the new officer with the basic tools and knowledge for a division officer assignment at sea. If the officer's prospective billet requires it, he will also undergo additional functional training designed for several of the more technical shipboard billets while enroute to the ship.

The knowledge and qualifications expected during the initial shipboard tour are demanding. During this thirty month tour an officer should prove himself a competent

division officer and qualify as a Combat Information Center Watch Officer (or Surface Watch Officer), underway Officer of the Deck (OOD(U/W)) and finally, as a Surface Warfare Officer. If assigned to the engineering department the earning of his Engineering Officer of the Watch (EOOW) qualification will precede the others. Since this qualification will be a prerequisite when screening for executive officer afloat, an engineering assignment during the initial sea tour is the ideal time to accomplish this.

During the first sea tour all surface warfare trainees should serve in at least two departments. This rotation will provide junior SWOs with a broader experience base. By so doing two-thirds of the officers should hold at least one job in the engineering department which includes formal EOOW school and an increased opportunity to qualify as an EOOW. Providing this broadened experience base at this early career stage will be the least costly in terms of readiness.

Once the first critical career milestone of SWO qualification has been accomplished, the second major milestone is addressed. Semi-annually the records of junior Surface Warfare Officers with at least thirty months commissioned service are reviewed by a formal administrative screening board to select the best qualified by reason of prior performance and potential for attendance at the Surface Warfare Department Head Course and ultimately assignment to a surface ship as head of a major department. An important aspect of the department head screening process is to designate those selected to enter operations, engineering or combat systems tracks. This track selection which is based on individual preference, demonstrated proficiency, commanding officer's recommendation and the needs of the Navy will identify the department in which that officer will serve as department head.

Approximately one-third of each year group will be assigned a follow-on 18-month sea tour after the initial tour. These LTJG or LT sub-department head billets, such as precommissioning crew or the Carrier Readiness Improvement Program (CVRIP), require SWO-qualified proven performers as explained above. These tours will further broaden a young officer's experience and knowledge of a different ship.

Upon completion of an officer's initial sea tour(s) an officer will normally be ordered ashore for approximately two years. This assignment could be for graduate education, recruiting, instructing others or a host of other jobs in Washington, D.C., the rest of the continental United States or in one of the more than seventy foreign countries where the Surface community fills billets.

Following completion of this first shore assignment an officer will be ordered to Newport, Rhode Island for the 24 and a half week Department Head Course. Upon course completion, officers will return to sea for a three-year period, serving two 18-month tours (hence the term split-tour) in the same departmental area. These tours will be served in different ships but will use experience gained as a Division Officer and build on the material learned in the Department Head Course. The progression of the two department head billets will be from less to more complex and will provide "increased experience in a discipline...through continuity of assignments" [Ref. 19]. This is an essential feature of the current SWO career path, to use and build on previous expertise. It is a significant break from the "Jack-of-all-trades" mentality that most SWOs grew up with. The URL Officer Career Guidebook amplifies the purpose of the two department head tours being served in two different ship types quite succinctly [Ref. 2: p. 27].

This split tour concept is designed to service two career objectives: broaden your professional knowledge

within your own warfare community and make available to all Surface Warfare Officers a level of diverse fleet expertise which is unavailable through any other source. It also serves the "needs of the Navy" by ensuring that all types of surface ships receive the highest possible level of competence in the department head billets.

The listing of both first and second half split-tour department head billets is shown in Appendix B.

An officer's second shore tour will begin at the nine or ten year point of commissioned service. If an officer completed postgraduate education, utilization of this education in his subspecialty is a primary consideration. For others the opportunity still exists if qualified to attend the Naval Postgraduate School (NPGS). Other options include attendance at a junior service college, if previously selected, or again a host of other billets in Washington, D.C., the rest of the continental United States (CONUS), or outside the continental US (OUTUS).

Following the second shore tour most Lieutenant Commanders can expect to spend about three years at sea in two distinct 18-month tours. In one of these tours called a LCDR complex Sea Tour, a SWO will further utilize his departmental technical expertise as a department head on a major ship or on a major staff. Assignment as an afloat executive officer (XO), the other LCDR tour, is strictly dependent on having successfully screened for this demanding job and is the third major career milestone for a Surface Warfare Officer. Formal administrative screening for this assignment is conducted yearly with each promotional year group having four annual "looks" (five if serving in an afloat billet at the time). With current XO selection opportunity about 60 percent, the surface XO screening board will select one-third of a year group's executive officers from each of the three departmental disciplines, namely Operations, Combat Systems and Engineering.

The training conducted just prior to the XO tour consists of two separate courses. Opposite training is the first and is designed to refamiliarize and update an officer with those departmental areas where he did not serve a department head tour (e.g. engineering training for a former Combat Systems Officer). The other course is the Prospective Executive Officer (PXO) course which will broaden the PXO's knowledge of all departments and in addition to specialized tactical training will prepare him to be "second in command."

During the third and subsequent shore tours assignments will be made to increasingly more challenging billets of responsibility where officers may further apply their skills and experiences in subspecialty billets, operational billets requiring SWOs, general unrestricted line officer billets or senior service colleges. An increasing number of these billets are in the Washington, D.C. area but a significant number also exists in other CONUS areas and some in OUTUS areas.

The commanding officer (CO) tour in the grade of commander follows, as the professional apex for a mid-grade officer. Screening for this challenging assignment is the fourth major milestone for the Surface Warfare Officer. Selection for command begins in the year following selection to rank of CDR and is conducted by a formal administrative screening board. This annual procedure reviews those already chosen for continued outstanding performance and gives each promotional year group four "looks". For those officers not screened, utilization of expertise, especially as a proven subspecialist is highly sought after. Those selected for command will serve a twenty-seven month CO tour and approximately thirty percent of these may expect a follow-on Post-CO tour at sea. The achievement of selection to the grade of captain is the fifth major SWO milestone.

Of those junior captains having had command, approximately forty percent will be screened for a major command (about twenty-seven percent at sea and thirteen percent ashore). Those selected are specifically screened for command-at-sea either of a ship or a staff; CO of a major Naval activity ashore; or as a program manager ashore. The tour lengths for these billets are twenty-four months (eighteen months minimum on a ship, as the first half of a sequential command); thirty-six months; and forty-eight months respectively. Roughly half of those serving major command tours will be screened for a follow-on sequential command.

Of critical importance to the success of the SWO career path in meeting the future needs of the Navy is the retention of quality, well-trained officers.

The retention of officers is of great importance to the Navy because of the lengthy time, effort, and money that are required to qualify individuals to perform in critical warfare functions. In addition, retention of officers is required to permit selectivity of choice for promotions, specialized training and education, and key assignments. [Ref. 4: p. 6].

Billets in the Navy must be filled with the best available officers. If retention is poor and there are insufficient qualified officers to relieve those in valid billets at sea, then the alternatives are to extend the incumbents by lengthening their tours until a qualified relief can be found or lowering the quality requirements for the job. Extending personnel at sea can be expected to have a deleterious effect on retention, further exacerbating the officer inventory and quality issue. Lowering quality will at some point have a negative effect on fleet and combat readiness. In 1980 a policy decision change was implemented altering the initial three year sea tour to a junior officer (JO) "split tour" plan. Here, following a two year sea tour, JOs were transferred to another ship type for a follow-on,

18-month sea tour to expand their professional experience. Investigating the effects of the policy change, Cook and Morrison (Cook and Morrison) found that officers receiving a split-tour were more likely to resign than those who had not split-tour.

This explanation of the basic Surface Warfare Career Path was intended to illustrate a path which is developmental, building on and utilizing previous experience. It also shows quite visibly the sea/shore rotation whose importance is often overlooked when considering the officer communities and the SWO community in particular.

B. OTMS - THE OPERATIONAL TECHNICAL MANAGERIAL SYSTEM

OTMS is the personnel management system for the Unrestricted Line Officer recognizing operational development as the cornerstone of a career, yet emphasizing concentrated development of a secondary technical or managerial field to meet total Navy requirements [Ref. 2]. Within this system operational tours are stressed developing warfare specialization and each subsequent operational tour builds on the previous one. As an officer advances up the rank structure, the level of technical and managerial challenges and responsibilities will require a solid background developed during previous non-operational tours. The Unrestricted Line Officer Career Planning Guidebook cautions, however, against building this subspecialty expertise at the expense of operational development: "It is important to understand that for the URL officer development in a subspecialty is not a generally available alternative to operational development" [Ref. 2: p. 7]. What is needed in the SWO community today are officers who are both proven warfare specialists operationally and proven subspecialists ashore. For, in choosing those "best fitted" for positions

of greater responsibility in the Navy, selection boards have recognized

the URL officers who have specialized expertise and proven performance in areas other than their operational fields. An examination of the selection board statistics reveals that officers who are both outstanding performers in their designator specialty and a proven subspecialist enjoy an extremely high promotion opportunity [Ref. 2: p. 7].

Evidence of this fact are the FY 1981 - 1985 averages for promotion to captain shown in Table 3. An officer's chance of promotion to captain with both command experience and a proven subspecialty is almost 27% higher than an officer who has had command experience only, and is a full 67% higher than one having only a proven subspecialty.

TABLE 3
Five Year Average of Promotion Probability to Captain
by Category for Unrestricted Line Officers

<u>Category</u>	<u>Avg. Prom.</u>	<u>Prob.</u>
Subspecialty only	54/435	12.6%
Proven Subspecialty only	23/74	31.1%
Command only	148/207	71.5%
Command and Subspecialty	965/1098	87.9%
Command and Proven Subspecialty	258/263	98.1%
All Unrestricted Line Officers	1452/2249	64.6%

C. BILLET OPPORTUNITY

The opportunity for command, or for any other sea tour is determined by three factors:

1. the number of ships available;
2. the size of each year group; and
3. the length of the tour.

Since within a given period of time, the number of ships available and the size of a year group are fixed, tour length is the only variable that can be altered. Tour length is critical because it determines the frequency with which a given number of billets will turnover; the shorter the tour length, the more rapid the turnover and the greater the officer flow through a billet, otherwise known as the billet rate. This rate or flow expressed in people per year represents that portion of a year group having the opportunity to perform in that billet.

A recent example illustrating the effect of lengthening tours and the resultant decrease in opportunity was the CNO's decision to lengthen Surface Warfare Commander Command tours from 24 to 27 months. This three month extension resulted in this command opportunity to decrease from 50% to 45%. The net result was that approximately five fewer officers in those year groups affected would have the opportunity to serve in an afloat command. The formula to determine command opportunity and a sample determination of it is given in Table 4.

The career path previously displayed in Figure 1.1, was implemented in December 1983. While most of this new pathway has already been implemented, some of the training involved will not be in place until 1987 due to personnel and facility construction constraints. The rationale for implementation of this change was the perception by many senior Surface Warfare flag officers that insufficient

TABLE IV
Surface Commander Command Opportunity
for n Number of YGs

$$\begin{aligned}\text{AVERAGE YG STRENGTH} &= \frac{\text{Sum of Strengths for n YGs}}{n} \\ &= \frac{1003}{5} = 200.6\end{aligned}$$

$$\begin{aligned}\text{COMMAND OPPORTUNITY} &= \frac{\text{Number of Commands/Year}}{\text{Average YG Strength}} \\ &= \frac{114.5}{200.6} = 57\%\end{aligned}$$

<u>YG</u>	<u>INVENTORY</u>	<u>QUOTA</u>
59	186 x 57%	106
60	191 x 57%	109
61	206 x 57%	117
62	249 x 57%	142
63	171 x 57%	97
YG Total	1003	

effort was being made to develop and utilize the specialists required to operate and maintain the increasingly complex engineering and combat systems found in the fleet.

The major objectives of this revised SWO career path as stated in [Ref. 20: p. 1] are to:

1. increase readiness and warfighting capability;
2. intensify officer professional development in operations, combat systems, engineering, and overall material readiness;
3. provide the CO more opportunity to concentrate on tactics and warfighting;

4. provide broad base of experience to division officers through increased rotation;
5. provide increased experience in a discipline to department heads through continuity of assignments; and
6. provide department head assignment progression from less to more complex responsibilities in the same area.

A complete list of the revised career path objectives are included in Appendix D.

VADM Walters, the Deputy Chief of Naval Operations for Surface Warfare echoed these objectives, emphasizing "our primary objective is to increase the technical competence and professionalism of our mid-grade officers" [Ref. 20: p. 1]. On another occasion he stated "we need to leave mid-grade SWOs in a technical discipline where they have prior experience, a good bit longer . . . as experience and knowledge deepen so do competence and efficiency increase in the billet" [Ref. 21: p. 2].

In summary, the evolution of the SWO Path is based on four focal points of development. These are:

1. the Department Head tour,
2. the Executive Officer tour,
3. the Commander Command tour,
4. the Major Command tour.

Selection for each of these focal points is reached following administrative board screening of one's service record based on previous professional performance. While there is no absolute link between this administrative screening and promotion to the next pay grade, the quality cut made by the screening board is very similar to that made by the separate, statutory promotion board. Successful screening for these focal point jobs indicates that the officer has demonstrated those skills and attributes that

the career development system must produce for the surface community to effectively carry out its mission.

To support the SWO career planner to perform policy analysis with respect to PCS cost savings versus their impact on the professional development of the SWO community, a career path representation is required. It should be designed so that ultimately it will be susceptible to modelling and computational methods. The four focal points of development serve as the basis for the network representation of the SWO career path which follows.

IV. NETWORK REPRESENTATION OF CAREER PATHS

In constructing the framework for a career path model it is important to capture the essence of a SWO career path and to explain the major patterns and flows involved in it. However, it would increase model complexity and detract from its usefulness to try to incorporate all possible career paths. Modeling the SWO career paths can be illustrated using network representations of career paths. Figure 4.1 is one attempt at such a network. This figure presents a means of classifying the tour assignments of the SWO community by tour sequence and activity. Each tour assignment is described by a two digit alpha-numeric code. The first digit represents the tour sequence number and increases from one through twelve referring to the sequential position of tours progression through which constitutes a career. The second digit refers to a given activity and is denoted by one of the letters: A,B,C,D,E,F,G and S. Although grade and years of completed service (YCS) are not incorporated in this network, as the tour sequence numbers increase paygrade and YCS increase with them. The activities listed at the left depict classifications of billets into such activities as: professional training, professional education, Washington tour, shore (CONUS), fleet unit, afloat staff, shore (OUTUS) and separation. The definitions of the classifications chosen are listed in Table 5.

To illustrate the working of the network a sample career path has been included in Figure 4.2. The following discussion of this sample career path will point out the network features and illustrate its usefulness.

PRO TRNG	0A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12A
PRO ED		2B	3B	4B	5B	6B	7B	8B	9B	10B	11B	12B
WASH DC		2C	3C	4C	5C	6C	7C	8C	9C	10C	11C	12C
SHORE CONUS		2D	3D	4D	5D	6D	7D	8D	9D	10D	11D	12D
FLEET UNIT	1E	2E	3E	4E	5E	6E	7E	8E	9E	10E	11E	12E
AFLOAT STAFF		2F	3F	4F	5F	6F	7F	8F	9F	10F	11F	12F
SHORE OUTUS		2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G
SEPAR- ATION		2S	3S	4S	5S	6S	7S	8S	9S	10S	11S	12S

Figure 4.1 Network Representation of a SWO Career Path

TABLE 5
Activity Definitions

- A. PROFESSIONAL TRAINING: Student billets in either the SWO Department Head or SWO (Basic) courses of instruction of duration longer than 20 weeks.
- B. PROFESSIONAL EDUCATION: Student billets at a postgraduate school or a war or staff college of duration longer than 20 weeks.
- C. WASHINGTON TOUR: Shore duty billets in the Washington Metropolitan area not meeting any of the criteria in A and B above.
- D. SHORE (CONUS): Shore duty billet within the continental United States not meeting any of the criteria in A, B and C above.
- E. FLEET UNIT: Ship's company sea duty billets.
- F. AFLOAT Staff: Afloat staff sea duty billets.
- G. SHORE (OUTUS): Non-CONUS shore duty billets.
- S. SEPARATION: Loss of officers to the SWO community. The main reasons are resignation (voluntary or involuntary), retirement and lateral transfer to another officer community.

A. SAMPLE CAREER PATH

All career pathways begin with tour 0A. The first digit "0" indicates that this tour is preliminary to the first operational billet, tour 1E. Although the specific order of the activities from top to bottom implies no priority whatsoever, the placement of the Fleet Unit activity in the middle of the network was done to reflect its central position in the SWO career path. The lack of a first tour for the other activities indicates that tour 1E is the initial operational tour served by all Surface Warfare Officers. The lack of a tour designated 2A in the network indicates

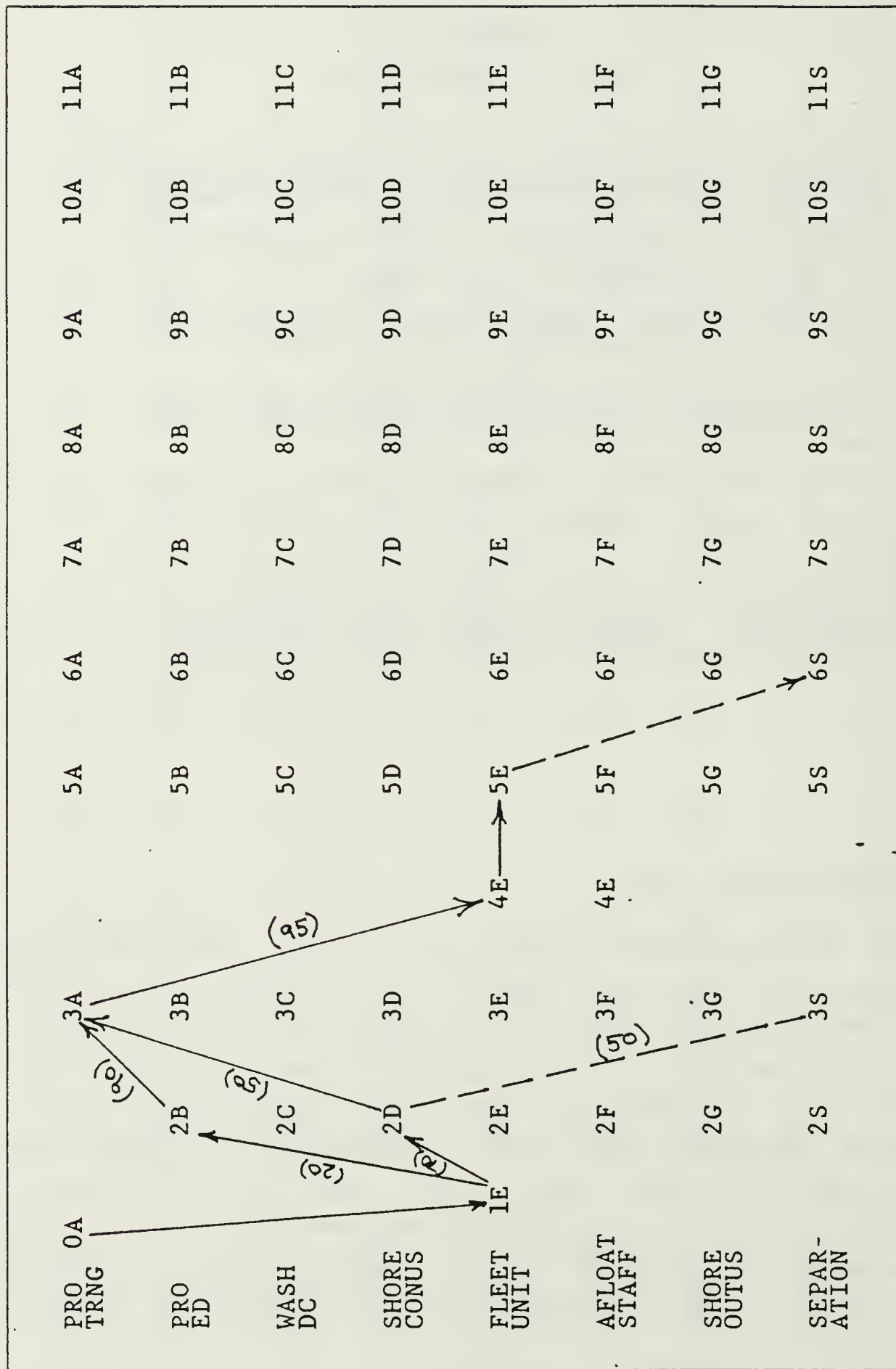


Figure 4.2 Sample Network Representation of a SWO Career Path

that no Professional Training assignment is feasible as a second tour for any SWO. The two arrows running from 1E to 2B and 2D, respectively, with the numbers 20 and 70 written alongside each arrow show that in this sample career path 20 % of the officers leaving tour 1E proceed to tour 2B and 70 % to tour 2D. The remaining percentages of officers must, consequently, move to one of the tours 2C, 2E, 2F and 2G. These movements are not represented by arrows here because each is followed by less than 10 % of the officers completing tour 1E and showing these arrows would distract from the main career paths being displayed in this figure. Tour 3A represents an assignment through which all SWOs staying in the system must pass. Having completed tour 3A, almost all personnel proceed to 4E. The vast majority of individuals leaving 4E then proceed to 5E. The sample also displays the dashed arrow leading to 6S which in lieu of any other arrows from 5E indicates that all officers following this sample path leave the system at this point, upon completion of the fifth tour. The inclusion of separation as an "activity" in the network reflects the importance of retaining personnel in the closed Navy personnel system. Arrows to these separation nodes are dashed to emphasize the loss of officers whose SWO careers end with that move. The absence of a separation node indicates separation is not feasible at that career point due to the obligation of service from a previous tour.

In summary, the essential features of the network are:

1. The network consists of a matrix of nodes each representing a tour of duty in the career path of SWOs.
2. These tours are designated by two digit codes. The first digit, a number, represents the tour sequence number and increases from left to right. The second digit, a letter, denotes one of the eight activities described in Table 5.

3. Arrows connecting nodes indicate PCS moves of individuals from one tour to another.
4. The absence of a node from the network indicates that an individual pathway may not progress through that node.
5. Two tours with no arrow connecting them does not negate the feasibility of a movement between them, but it does indicate that less than ten percent of the officers completing the first tour move to the second tour.
6. Dashed lines indicate PCS separation moves out of the system.
7. The lack of a separation activity node suggests that an individual may not separate at that career point because of remaining obligated service.

B. ACTUAL CAREER PATHS

In constructing the career pathways every effort was made to accurately represent the actual professional development flow of Surface Warfare officers occurring today. In doing so the assumption was made that the SWO career displayed in Figure 1.1 found in Chapter I could be represented by a series of career paths.

The career pathways were constructed based on discussions and reviews with OP-130 and NMPC 41 personnel. It is felt these pathways accurately represent, within allowable tolerances, the actual movement patterns of Surface Warfare Officers today. The guidelines employed in their construction were that the flows should represent, with a perceived accuracy of ninety percent, the actual flows of officers detailed this year. Concern was not with including the outlying exceptions but rather with representing the standard career paths SWOs undertake.

The career paths of about 90% of all SWOs will be divided into seven "groups", each group shown in a separate figure. The seven groups are based on the degree of attainment of the four focal points of professional development discussed in Chapter III. The first five groups are based on the number of focal point tours served which can range from a maximum of four to zero. The first group of pathways includes service in all four focal point tours culminating in major command. The second group includes service in only the first three focal point tours, the last one being command at sea. The third group contains service in the first two focal point tours and ends with failing to screen for commander command. The fourth group is composed of paths through the department head tours followed by not screening for executive officer. The fifth group contains paths representing the careers of officers failing to screen for Department Head School, the first of the focal points.

Although these five groups cover all of the possibilities, deviations from the advertised career path shown in Figure 1.1, do occur following the initial sea tour and again during the first department head tour. The sixth group includes the pathways of those officers serving a sequential sea tour following their initial sea tour. Finally, the seventh group is comprised of the paths of officers serving their initial department head tour as members of the pre-commissioned unit of a ship and do not serve the second leg of the split tour. While these could have been included in previously discussed groups such inclusion would have unnecessarily complicated the graphs of those groups of career paths. A summary list of these seven groups is given in Table 6.

TABLE 6
Surface Warfare Officer Career Pathways

1. Pathways of Officers Leading to Major Command
2. Pathways of Officers Leading to Commander Command but Failing to Screen for Major Command
3. Pathways of Officers Leading to Executive Officer Assignment but Failing to Screen for Commander Command
4. Pathways of Officers Leading to Department Head Assignment but Failing to Screen for Executive Officer
5. Pathways of Officers Failing to Screen for Department Head
6. Pathways of Officers Leading to Major Command Who Serve a Post-Division Officer Sequential Sea Tour
7. Pathways of Officers Leading to Major Command Who Serve a Single Department Head Tour in a Pre-commissioning Billet

1. Pathways of Officers Leading to Major Command

The attainment of major command presupposes service in all four focal point tours. Figure 4.3 illustrates these paths to major command. The requirement for an officer to advance to major command necessitates that he has successfully screened for tours at each of the three previous focal points of development: department head, executive officer, and commanding officer.

Tour 0A represents the SWO (Basic) training course. With its completion all SWO trainees proceed to their initial shipboard tour (Tour 1E). Upon completion of this thirty month sea tour approximately two-thirds of a given year group will go ashore to postgraduate (PG) school (Tour 2B), or to shore duty either in CONUS (Tour 2D), or in OUTUS

(Tour 2G). The remaining third of the year group will be required to serve a follow-on sea tour either aboard another ship (Tour 2E) or as an afloat staff officer (Tour 2F). Although some officers may go straight to Department Head School (Tour 3A) following the second eighteen month sea tour (Tour 2E or 2F), most officers will go ashore for their third tour. For this latter group of officers not going ashore until the third tour, a separate pathway will be discussed later in this chapter.

Upon completion of the second tour the department head school (Tour 3A) follows for those completing a shore tour and those coming from a second sea tour who desire to do so. Because a two year obligation is incurred with attendance at department head school, SWOs proceeding to their fourth tour are not eligible to resign and all proceed to their first department head tour (Tour 4E). Among those proceeding to precommissioning ships most will serve only one long department head tour and not participate in the split-tour program explained in Section A of Chapter III. For these individuals a modified career path is necessary and will be discussed later in this chapter. The next tour is the second half of the department head tour (Tour 5D, 5E or 5F).

The sixth tour includes a host of duty assignments all served ashore. Postgraduate education or a service college (Tour 6B), Washington duty (Tour 6C), or other CONUS (Tour 6D) or overseas billets (Tour 6G) could be included. These last three would serve the purpose of gaining experience and/or subspecialty utilization.

At this point in an officer's career he is most probably a LCDR and has a 60-70 percent chance of serving the non-XO LCDR sea tour. The majority of officers will serve two sequential LCDR sea tours at this point, one of which is the XO tour (Tour 7E or 8E) as the career path in

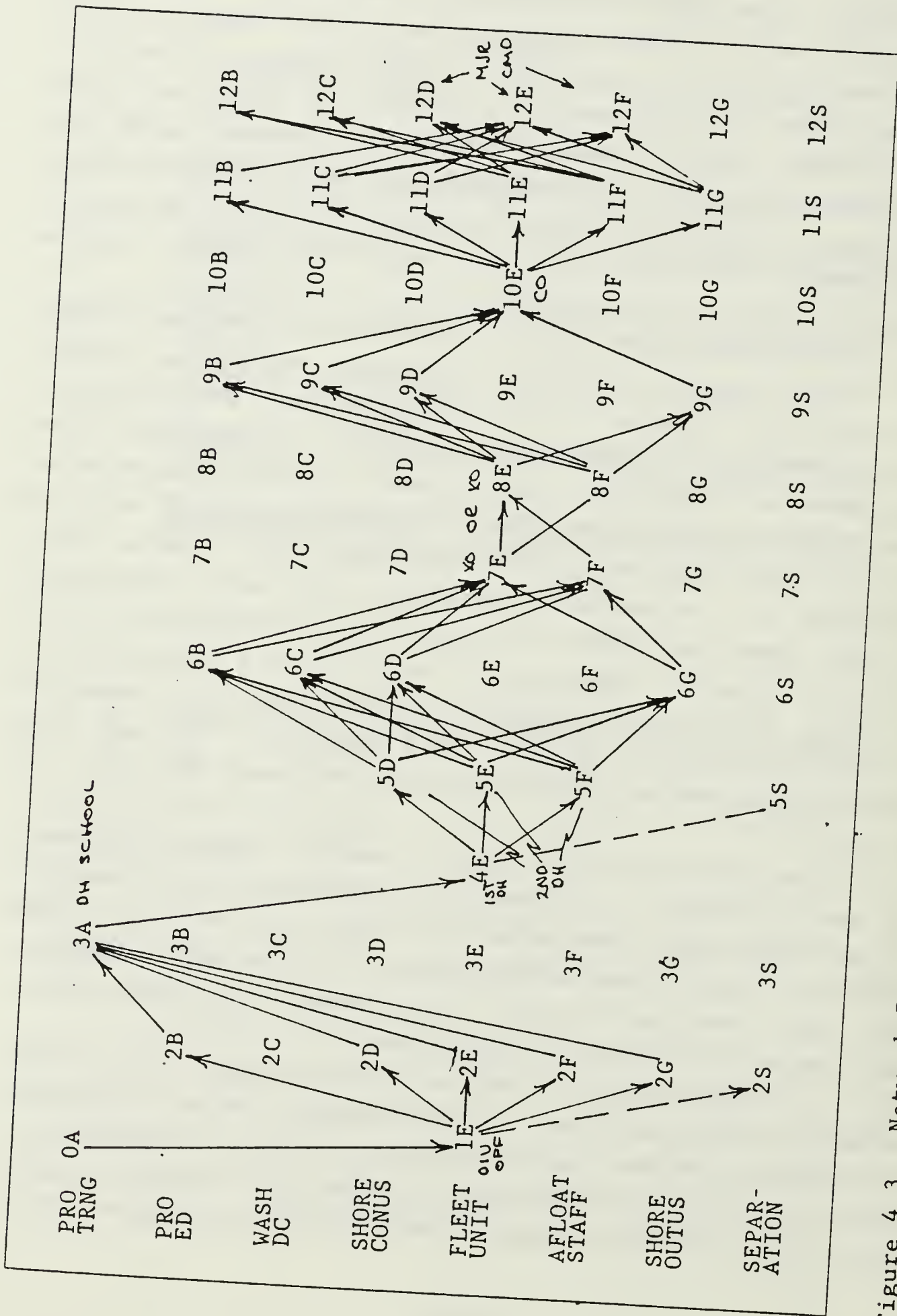


Figure 4.3 Network Representation of a SWO Major Command Career Path

Figure 4.3 shows. The order of the two tours depends upon the officer's seniority and billet requirements at the time. If the XO tour (Tour 7E) is served first then a post-XO LCDR sea tour (Tour 8E or 8F) will follow. The billets available for Tour 8E or 8F would include among others, chief staff officer of a DESRON staff or CO of a minesweeper. During the ninth tour attendance at a service college (Tour 9B) or continued experience or subspecialty utilization (Tours 9C, 9D or 9G) constitute the primary tours served. Following completion of this ninth tour, command at sea (Tour 10E) follows. While Tour 10E is a twenty-seven month tour it is preceded by a five month training pipeline making the tour actually thirty-two months long or longer.

Tours specifically requiring command-experienced officers comprise the majority of billets during the tenth tour. Annually twenty-seven surface warfare officers are required to attend the senior course at the Naval War College. This ten month course is designed specifically for those officers destined for future positions of greater responsibility in the Navy. The remaining post-command officers will fill the other 154 billets afloat and ashore which call for these post-command officers.

At this point in the career path officers either hold the rank of captain or are captain-selectees and will be detailed as such. Most major command selectees will proceed to their major command tour (Tour 12D, 12E or 12F) following completion of the eleventh tour. For those serving at sea in Tour 11E/11F and those completing a War College tour (Tour 11B), a shore tour (Tour 12C, 12D, or 12G), or a War College tour (Tour 12B) for those who have not already attended, may follow with major command occurring during the 13th tour.

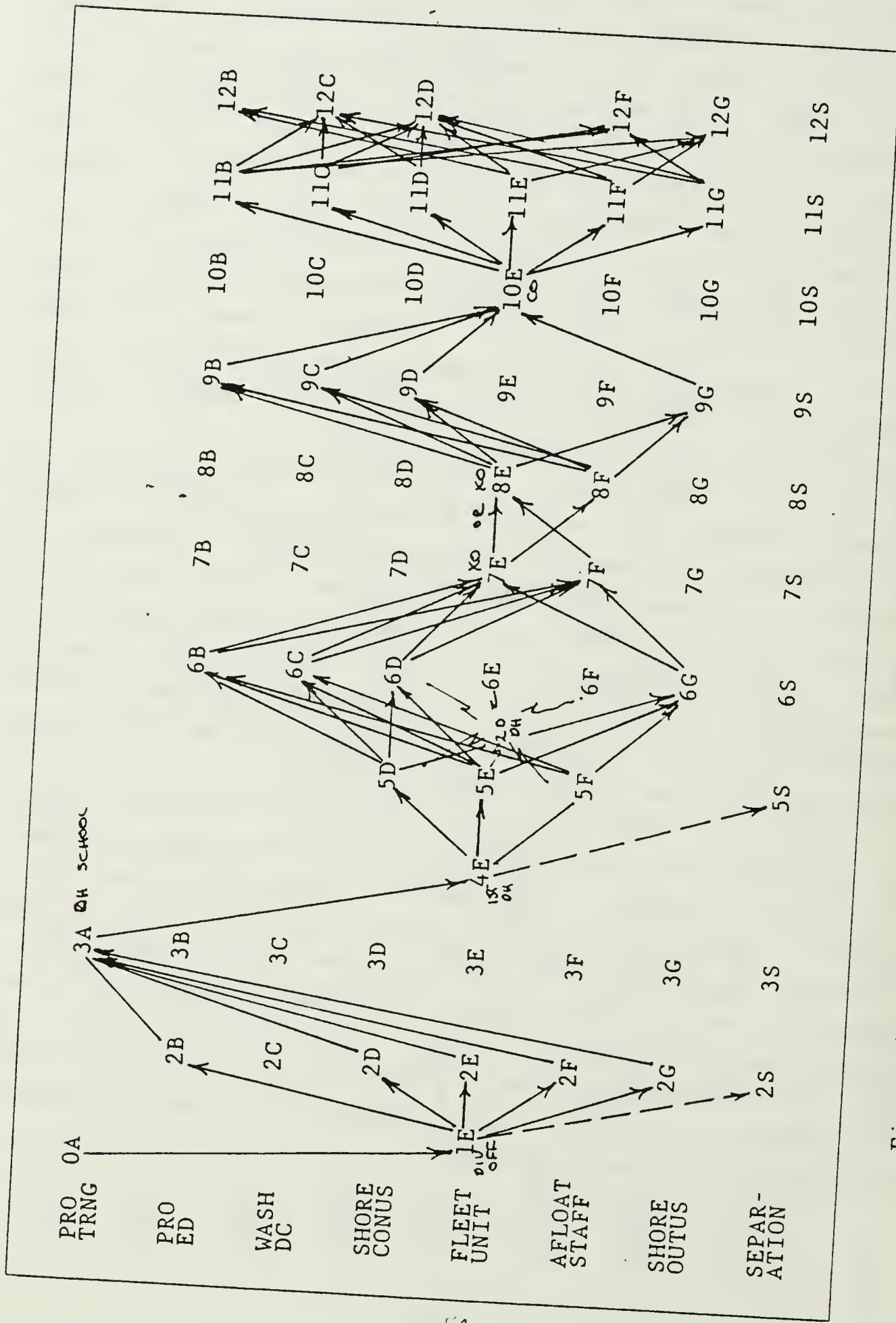


Figure 4.4 Post Command Representation of a SWO Career Path

2. Pathways of Officers Leading to Commander Command but Failing to Screen for Major Command

Officers in the second group of career pathways reach the third focal point of professional development, that of command-at-sea in the grade of commander, but subsequently do not screen for major command. These paths are identical to the major command pathways until the twelfth tour. While major command requires previous selection for captain, statistics reveal that in FY 1981-1985 71.5 percent of post-command URL officers were selected for captain while 98.1 percent of those post command URL officers who also had proven subspecialties were selected for that grade during the same period as shown in Table 3 found in Chapter III. The assumption is made that these officers will be selected for captain during their eleventh tour although some of the more senior ones may be selected during their command tours (Tour 10E). While specific billet assignment will vary at this career stage dependent on selection status to captain, the billet activity arrows to tour twelve will not change with one exception. The flow of officers to Tour 12E or any subsequent E billet activities will not exist. These officers may continue to serve in all other tours including afloat staff billets to utilize their expertise, particularly that gained during command.

3. Pathways of Officers Leading to Executive Officer Assignment but Failing to Screen for Commander Command

Officers having post-executive officer pathways advance to the second career development focal point but do not screen for command. As was the case with the previous pathways, this parallels the major command paths, shown in Figure 4.3, but only through the ninth tour. At this point the assignment branch of NMPC will provide the opportunity

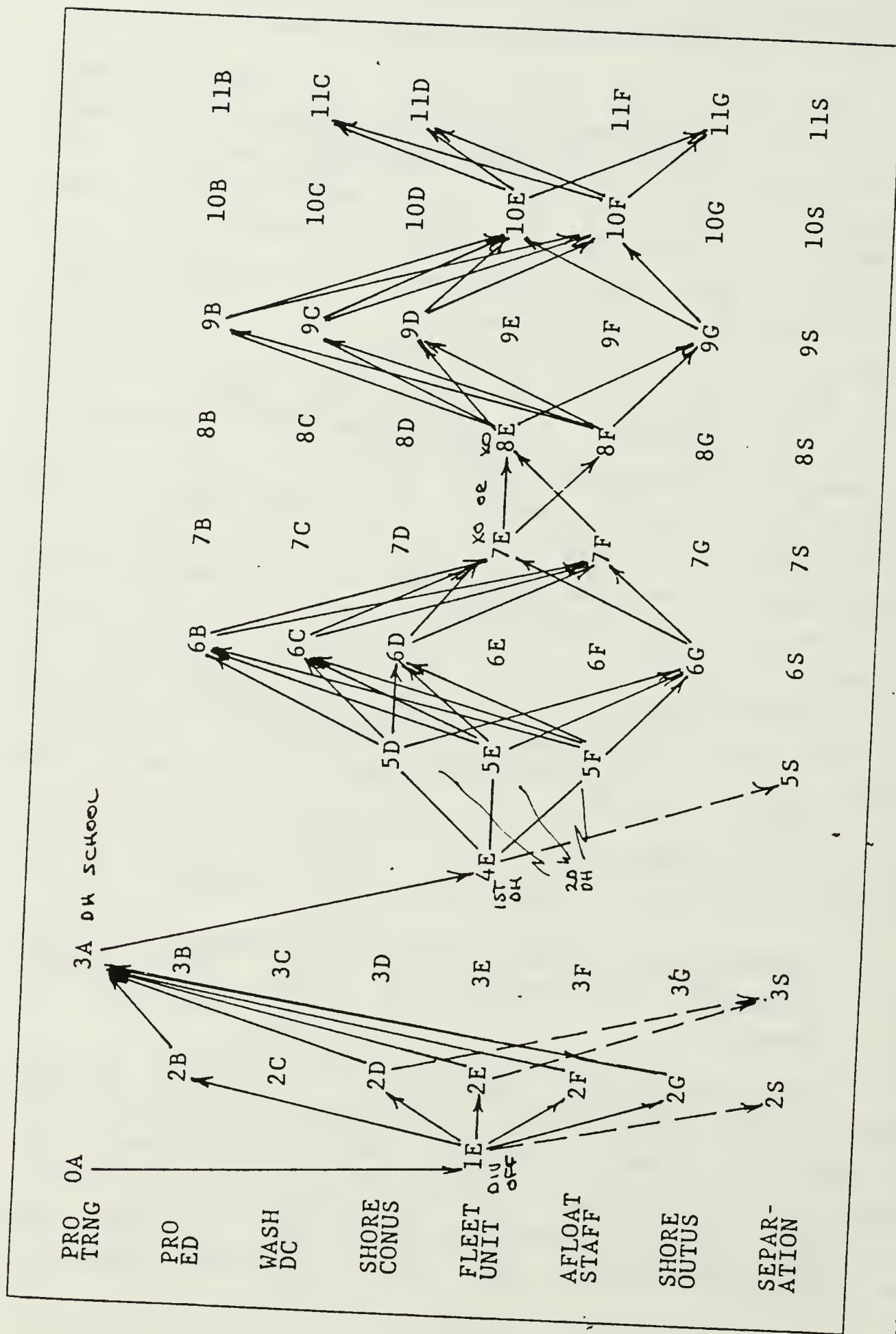


Figure 4.5 Post-Executive Officer Network Representation of a SWO Career Path

for commanders who have not yet screened for command to enhance their records by detailing them back to sea in a ship's company or afloat staff capacity (Tours 10E or 10F). For others, continued subspecialty utilization in Tours 10C and 10D are the primary activities assigned at this career stage. For this group, assignments to fleet units following the tenth tour (Tours 11E and E activity tours subsequent to it) are not done as may be seen by the deletion of Tour 11E in Figure 1.5. Assignments subsequent to the tenth tour include tours in Washington, D.C., other CONUS shore activities and OUTUS activities as shown by the arrows to Tours 11C, 11D and 11G, respectively. Tours for following assignments continue to be to these same activities.

Since historically 95 percent of previous LCDR executive officers select for CDR, it is assumed in this pathway that all do so. For those officers not selecting for captain, DOPMA requires retirement prior to the start of the 27th year of commissioned service. For those officers who may promote to captain based largely on their subspecialty record, retention into the 30th year of commissioned service is permitted.

4. Pathways of Officers Leading to Department Head Assignment but Failing to Screen for Executive Officer

Officers in this group advance through only the first focal point of professional development, completion of the department head tour. As was true in previous groups, this group of pathways shown in Figure 4.6 is the same as those of the Major Command group, seen in Figure 4.3, through completion of the sixth tour. Since the selection rate for LCDR is 85 percent and the quality cut for department head screening is very similar (90 percent of a YG who remain SWOs), the assumption is made that all personnel in

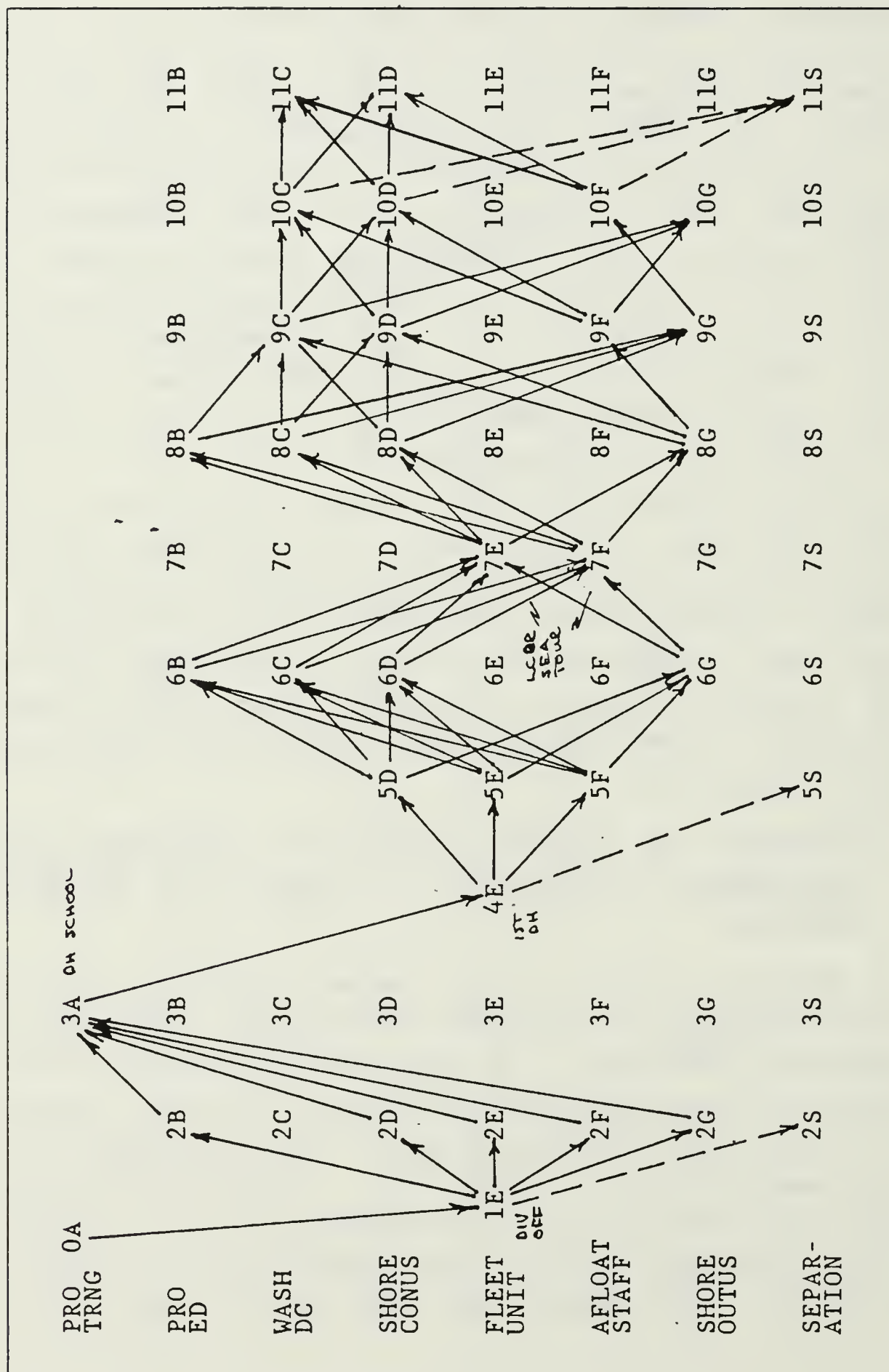


Figure 4.6 Network Representation of a SWO Post Department Head Career Path

this pathway are selected for LCDR, and this promotion occurs at approximately the nine and a half year point. A recent survey conducted by NMPC 411, the surface LCDR detailing shop, indicates this will occur during the fourth or early in the fifth tour. The impact here is that many officers serving their second department head tour (Tour 5E) are filling LT department head billets as LCDRs. This rank mismatch between department head grades and billet requirements is a problem and will be further addressed in Chapter VI.

The sixth tour is shore duty for all officers. Here, Postgraduate School or a service college (Tour 6B), subspecialty utilization or experience tours in Tours 6C, 6D, or 6F are options. Following the sixth tour, officers will be ordered to sea duty to fill complex LCDR sea billets (Tours 7E and 7F) shown in Figure 4.6. These complex billets include, but are not limited to, navigator, CIC officer and key engineering billets aboard major ships and staffs. Current XO selectivity is sixty percent and expected to rise slightly (possibly to seventy percent). With a seventy-five percent promotion opportunity for CDR, the assumption is generally made that the 60% of a YG who screen for XO are also selected for CDR. This means that the 40% of that YG who failed to screen for XO must compete for the remaining 15% of the promotions still available (75% promotion opportunity minus 60% who screened for XO). These officers then have only a thirty-seven and a half percent chance (15% divided by 40%) of making CDR. Therefore sixty-two and a half percent of those who achieve only the first focal point of development will not be selected for CDR and will retire as LCDRs. The thirty-seven and a half percent who do advance to CDR will be screened again for executive officer. While all tours are available to these officers who do not screen for X.O., the Postgraduate School portion

(Tours 8B and the B activity tours following it) is assumed not to be available after the seventh tour due to the risk of non-promotion and the limited numbers of seats available for CDRs. Attendance at a junior staff college course (the other portion of Tour 8B) is included as this would qualify an officer to utilize his training in the joint services staff area. The remainder of the career path requires that these officers be utilized in areas of their subspecialty or other significant expertise. Subsequent tours will be served mainly in shore CONUS (Tour 8C and other C activity tours) or shore OUTUS (Tour 8G and those G activity tours following it); although, some will serve in Washington (Tour 8C and other C activity tours following it). This pattern depicted in Figure 4.6 will continue until DOPMA mandated retirement points are reached or earlier separation occurs. DOPMA requires retirement with twenty years of service for LCDRs and twenty six years for CDRs unless continued on active duty. Because the number continued annually is so small, for simplification purposes, the assumption is made that none are continued.

5. Pathways of Officers Failing to Screen for Department Head

This group of career pathways reflects the pathways of those individuals who do not serve in any of the four focal point tours. This pathway shown in Figure 4.7 depicts a brief career served only in activities C,D,E,F,G and ultimately S. With a YG department head selection rate of ninety-five percent for those who remain in the service, and a selection rate to LCDR of ninety-five percent, it is assumed that an officer who does not screen for department head school will not be selected to LCDR. Therefore DOPMA requires a LT be separated from the Navy within the first year following his second non-selection to LCDR. Due to the

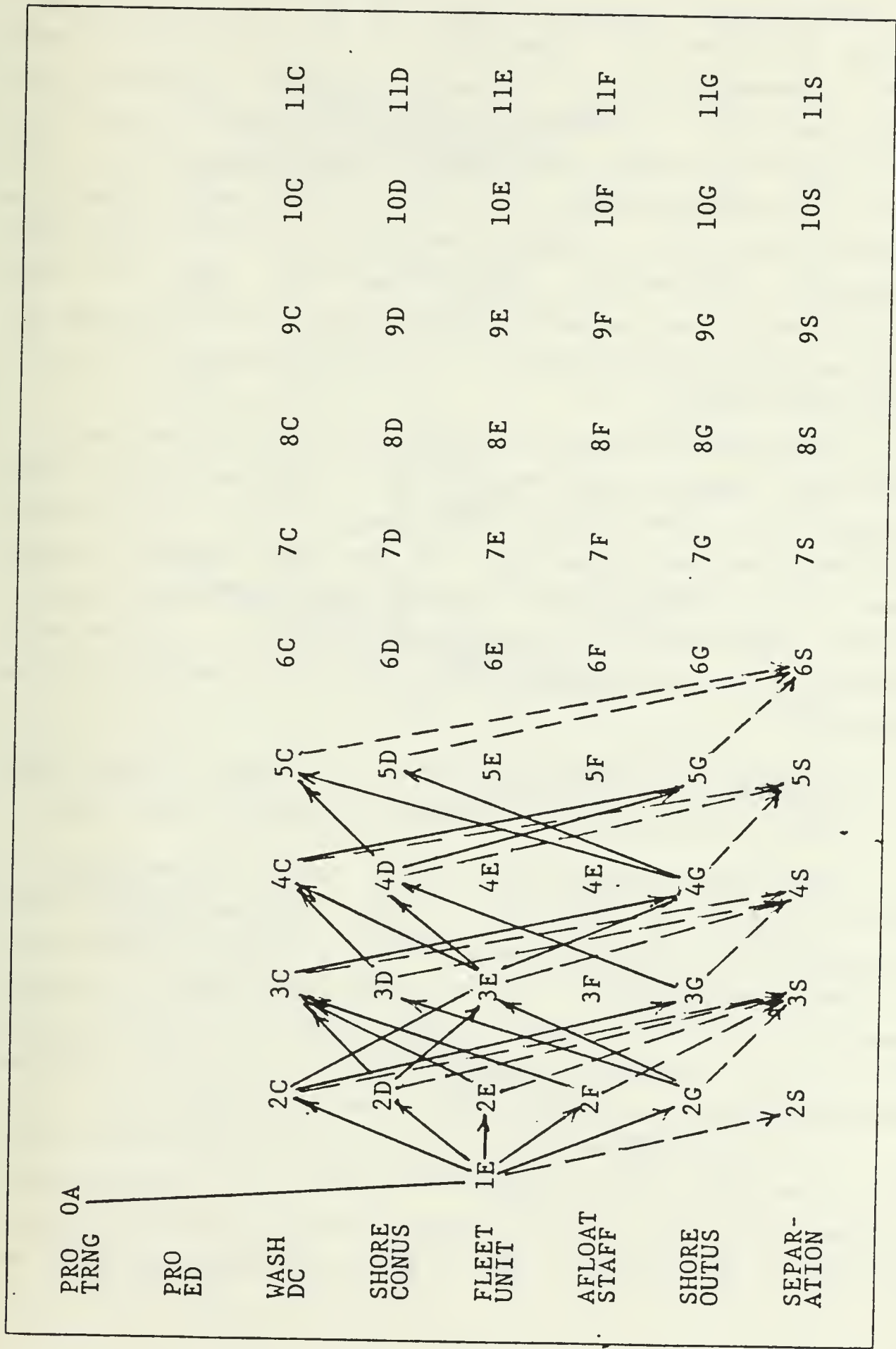


Figure 4.7 Network Representation of a SWO Post-Division Officer Career Path

promotional risk of an officer in this group, postgraduate school and service colleges (Tours 2B and B activity tours following it) are not available options and have been deleted. Immediately following his division officer tour the individual may be offered a follow-on sea billet (Tour 2E or 2F) in an attempt to "get well" professionally. If these are non-existent he is ordered ashore for either a Washington (Tour 2C), CONUS (Tour 2D), or OUTUS (Tour 2G) assignment. Subsequent tours (Tours 3C, 3D, 3G and following tours) are served in accordance with the needs of the Navy as depicted in Figure 4.7 until voluntary or forced resignation occurs.

This pathway also incorporates those who may fail to qualify as a Surface Warfare Officer or those removed from their ships for other lack of aptitude reasons. If selected to LT the above would apply; if not this pathway would continue to apply but forced separation would occur earlier after two unsuccessful LT selection attempts, at approximately the five and one-half year point at the end of the second tour.

6. Pathways of Officers Leading to Major Command Who Serve a Post-Division Officer Sequential Sea Tour

Thirty-four percent of a year group are required to remain at sea for a sequential junior officer tour. The small portion of officers who elect to attend department head school immediately following this second sea tour are included in the Major Command subsection. The remaining officers are included in the Post Division Officer Sequential Sea Tour pathway group shown in Figure 4.8.

Following completion of the initial operational tour at sea (Tour 1E) reassignment is made to a follow-on sea tour (Tour 2E or 2F). This eighteen month tour is followed by shore duty in Tours 3B, 3C, 3D or 3G. Upon completion of

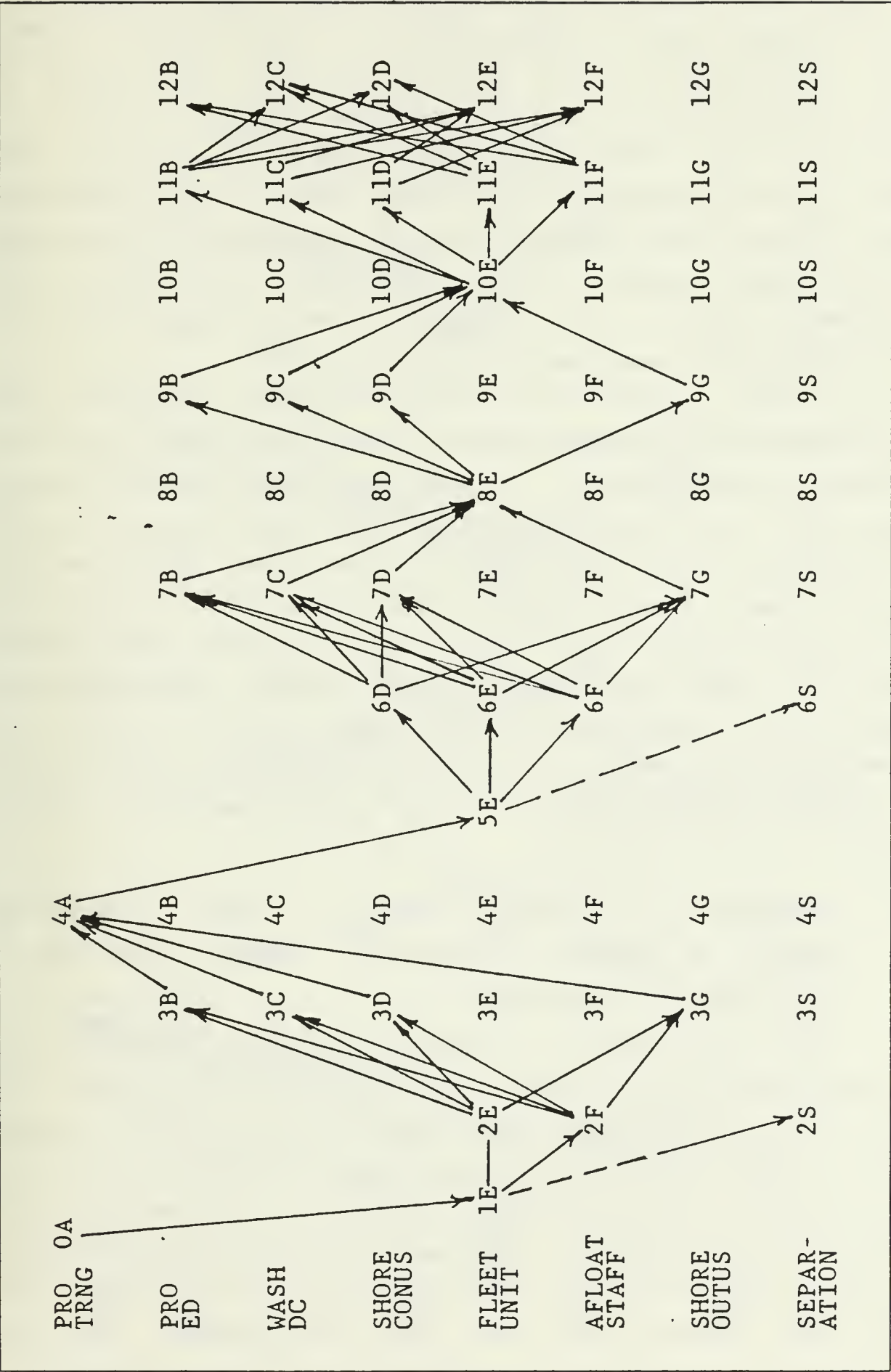


Figure 4.8 Network Representation of a Post-Division Officer Sequential Sea Tour Career Path

the third tour all proceed to Department Head School (Tour 4A). The net result of sequential sea tours is that the third through the seventh tours in the major command pathway, Figure 4.3, are delayed one tour and become the fourth through eighth tours as depicted in Figure 4.8. The eighth tour (Tour 8E) is the XO tour for all in this category. The assumption is made that these thirty-plus percent officers serving the initial sequential sea tour are the same thirty percent of the LCDRs not required to do the other LCDR sea tour; i.e., if a SWO does an extra tour as a junior officer he does not do one as a LCDR.

At this career stage those on this pathway rejoin their year group contemporaries. From the ninth tour on, this group is identical to either the major command pathway (Figure 4.3) or if an officer in this path fails to screen for the focal point of CO he follows the post-executive officer pathway (Figure 4.4). Should he fail to screen for executive officer he joins the post-department head pathway (Figure 4.5) at tour eight. Due to the high quality cut required to be assigned to this early sequential sea tour the assumption is made that all officers in this pathway will screen for department head if they have not done so already.

7. Pathways of Officers Leading to Major Command Who Serve a Single Department Head Tour in a Pre-commissioning Billet

The final group of pathways includes those individuals who serve only one department head tour (Tour 4E) as a member of a ship's precommissioning crew. While the proportion of a year group of officers who have done this has recently been as high as twenty percent, the current number is ten percent and should decrease further as the remaining FFG-7 Class frigates are all delivered to the Navy. Tour lengths for these jobs vary but are based on post

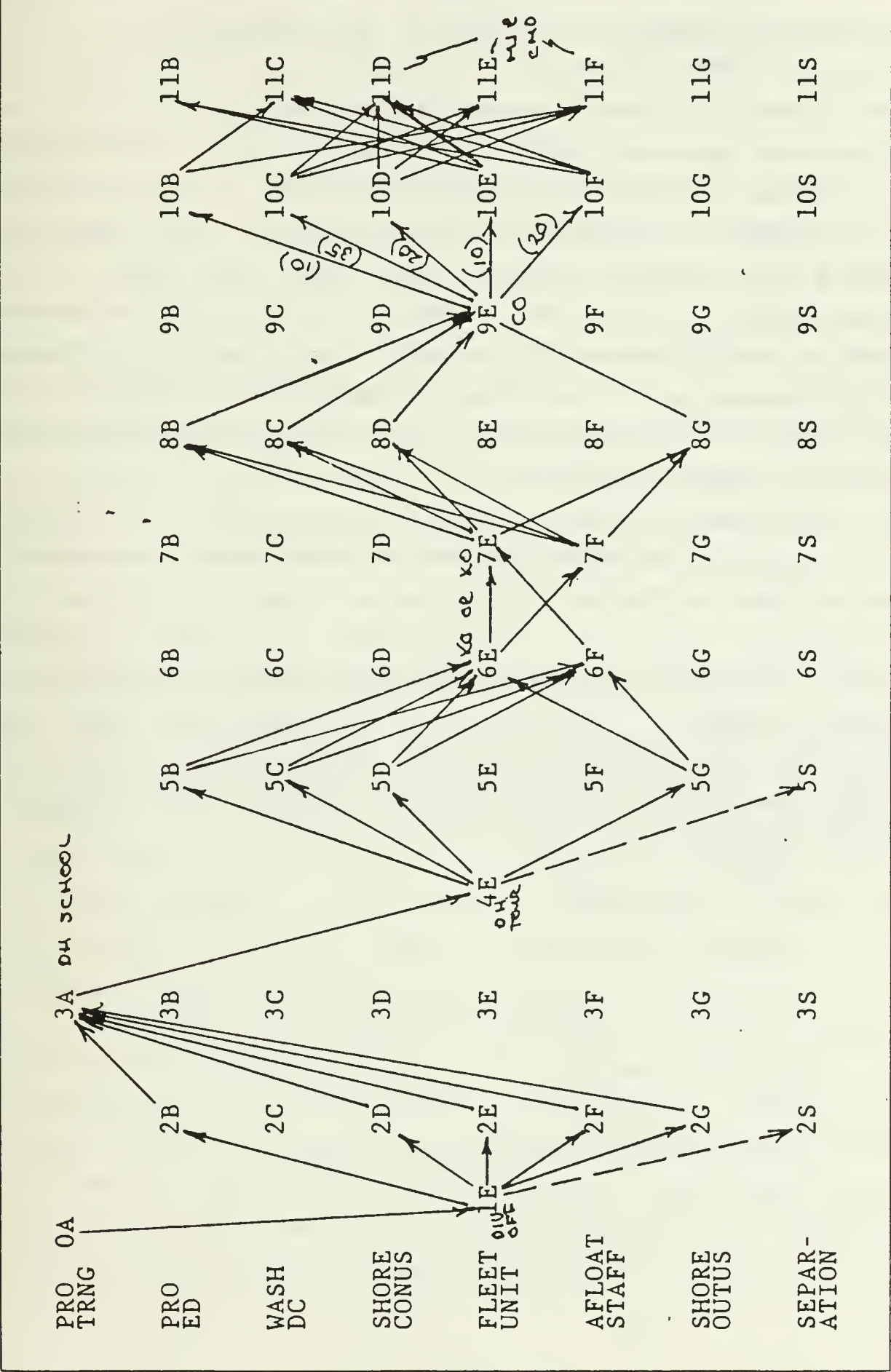


Figure 4.9 Network Representation of a Post-Precommissioning Crew Department Head Career Path

commissioning time and the specific billet held. Combining this with precommissioning time, total tour lengths are normally about three years long. The tour lengths for the FFG-7 Class Combat Systems and Engineering Officers, for example, are 32 and 36 months respectively following a one year training period. This one year period will include formal schools, team training and ship familiarization. This very long tour thus substitutes for the normal two department head split tours. The impact of this on the career pathway is that the second half of the department head split tour (Tours 5E or 5F) in the Major Command pathway (Figure 4.3) is deleted and the subsequent sixth through twelfth tours become the fifth through eleventh tours shown in Figure 4.9.

In summary, these seven pathway groups are considered to be valid representations of the actual movement of surface warfare officers. The basic tenet of this chapter has been that the lack of attainment of each successive focal point of professional development specifies a distinct SWO career pathway. Having thus determined network representations of the SWO career path, geographic billet analysis and historical tour length analysis will follow in Chapters V and VI.

V. GEOGRAPHICAL ANALYSIS OF BILLET REQUIREMENTS

The primary driving force behind the Navy's manpower-personnel policy is billet requirements as discussed in Chapter II. When discussing PCS moves and costs it is essential to examine the geographical location of billets Surface Warfare Officers are required to fill. This is because knowledge of these billet locations is necessary to determine the extent to which it is possible to professionally develop officers through their careers within the same geographical location, thereby reducing the requirement to transfer. While the allocation of these billets varies slightly from year to year, a method has been devised to determine the number of billets SWOs are required to fill at a point in time.

A. SOURCE OF DATA

The data source for this information was the Navy Officer Billet File (NOBF) maintained by OP-122. Using Statistical Analysis System (SAS) computer programs to draw data from the file and later hand manipulation to correct inconsistencies of location, geographic billet data was extracted from the NOBF to display billets by location, grade, and designator within grade.

For those locations hypothesized to have large concentrations of fleet units, i.e. large homeports, data was extracted using the variable AREA/CITY. This three letter code identifies specific geographic localities such as "FNO" for Norfolk and "KSD" for San Diego. The intent here was to break down billets by areas to examine the feasibility of retouring SWOs from sea to shore or vice versa in the same

area. Since a SWO's career path basically consists of a sea/shore alternating rotation, this type of billet analysis was deemed important especially in connection with PCS costs. For those areas without fleet unit concentrations billet information was extracted using the variable MOBLOC. This two digit number identifies larger geographical areas and is comprised of numerous AREA/CITY codes. Samples of these are "20" for Europe, "19" for the Washington, D.C. Metropolitan area and "09" for the North Central United States. While some homeports have large sea duty requirements, such as Norfolk with 1388 billets, others have only a few sea duty requirements, e.g. Key West, Florida has only twenty-nine billets.

In order to minimize the number of homeports it was determined that setting the homeport cutoff size at thirty sea duty billets for OUTUS locations and one hundred for CONUS locales would provide the best choice: small enough to include the major homeports and large enough to exclude the relatively minor ones. This breakdown resulted in ten areas falling within this criteria. These are classified as Fleet Concentration Areas and are listed in Table 7.

The remaining locations were considered non-fleet concentration areas and were subdivided geographically into the areas shown in Table 8.

B. DATA MANIPULATION

Developing a method for determining SWO billet requirements at a point in time is a complicated process. There are three basic designator coded billet types SWOs are required to fill: 1000, 1050 and 1110 billets. The definitions of these are listed in Table 9. The three other Billet Codes in Table 9 identify other billet codes and communities closely associated with SWOs. Both the 1130 and

TABLE 7
Fleet Concentration Areas

1. Newport
2. Norfolk/Virginia Beach
3. Charleston
4. Mayport
5. San Diego
6. Long Beach
7. Alameda/Oakland/San Francisco
8. Hawaii
9. Guam
10. Yokosuka

1140 communities are included under the "umbrella" of SWO billet fill responsibility for 1000/1050 designated billets. Because their community sizes are so small compared to the 1110 (SWO) community their quotas are included within the SWO quota. . No major inaccuracies are anticipated due to this inclusion.

Two other assumptions were made in presenting the data. First, because the 1160 code indicates SWO trainee billets, these 1160 designated billets were merged with 1110 designated billets for the same paygrade. Sea billets coded 1000 for LT and below were also grouped with 1110 billets for the same paygrade since the numbers are small and this usually occurs in actual practice. No adverse impact to the analysis is anticipated as a result of these inclusions.

Due to a Navy-wide shortage of Unrestricted Line Officers the Officer Manning Plan, or OMP, was instituted.

TABLE 8
Non-Fleet Concentration Areas

1. CONUS except Washington, D.C. area
2. Washington, D.C. area
3. Hawaii and Alaska
4. Europe
5. Asia
6. Africa
7. Central and South America and Caribbean Islands
8. Australia, New Zealand, and Pacific Islands
9. Canada

This plan which allocates billets to the various URL communities on a "fair share" basis, is maintained by NMPC 45 and is updated monthly. This plan accounts for billets programmed to be rotated in a given period, officers available to fill them during that period, percentages of the communities already filling 1000/1050 billets and several other items.

This plan incorporates the major manpower claimants (MMCs) billet gapping specifications and generates a goal for each community to fill both 1000 and 1050 designated billets. The goal assigned to the SWO community for October 1984 are included in Table 10. The term "gapped billets" to be used below indicates valid NOBF billets which are designated to be vacant by the MMCs. The plan also specifies the total number of 1000/1050 billets to be filled by all eligible officers as defined in Table 9. The total number of 1000/1050 billets with the gapped billets subtracted are given in Table 11.

TABLE 9
Designator Codes and Descriptions

<u>Billet Code</u>	<u>Billet Description</u>
1000	Unrestricted Line officer billet which may be filled by an appropriately skilled and experienced officer.
1050	Unrestricted Line officer billet requiring an officer qualified in any one of the warfare specialties (LT and above).
1110	Unrestricted Line officer billet requiring Surface Warfare qualification or afloat billets leading to such qualification.
1130	Unrestricted Line officer billet requiring Special Warfare (UDT/SEAL) qualification.
1140	Unrestricted Line officer billet requiring a Special Operations officer qualification.
1160	Unrestricted Line officer billet for an officer in training for Surface Warfare qualification.

TABLE 10
OMP 1000/1050 Billet Goal Assignment
For SWOs by Grade

<u>GRADE</u>	<u>DESIGNATOR</u>	
	<u>1000</u>	<u>1050</u>
CAPT	232	106
CDR	343	128
LCDR	91	126
LT and Below	445	162

TABLE 11
OMP 1000/1050 Billet Totals by Grade

<u>GRADE</u>	<u>DESIGNATOR</u>	
	<u>1000</u>	<u>1050</u>
CAPT	552	249
CDR	893	241
LCDR	1131	236
LT	1411	178
LTJG	566	
ENS	150	

The final two data items needed to develop a composite number of billets to be filled by SWOs are the number of OMP gapped 1110 billets and the number of 1110 designated billets ashore. This information is contained in Tables 12 and 13.

The assumption was made that the OMP correction factor would only be applied to 1110 shore billets since sea billets necessarily have a higher priority. The data concerning 1000/1050/1110 designated billets in the Navy located at each of the places listed in Tables III and IV were then used as a basis to adapt the OMP. Using the data from Tables 10, 11 and 12 "billet correction factors" were developed for each of the billet designators, 1000, 1050 and 1110.

C. RESULTS

Using grade and designator data from Tables 10, 11, 12 and 13 a proportion was derived for the fraction of all

TABLE 12
Number of 1110 Shore Billets Designated
to be OMP Gapped

<u>GRADE</u>	<u>1110 Billets</u>
CAPT	22
CDR	64
LCDR	204
LT	60

TABLE 13
Number of 1110 Designated Shore Billets

<u>GRADE</u>	<u>1110 Billets</u>
CAPT	227
CDR	484
LCDR	671
LT	672
LTJG	25
ENS	2

billets of designators 1000, 1050 and 1110 to be filled by SWOs. This proportion represents the portion of 1000, 1050 or 1110 designated billets SWOs are required to fill. It is hypothesized that applying this proportion against the number of actual billets with the same designator in each location and in each grade and then summing these totals for

the 1000/1050/1110 designated billets will yield a valid composite for the location, paygrade and type of duty.

The results of the geographical billet analysis are shown in Appendix E. Individual tables were compiled for each of the nine non-fleet concentration areas given in Table 8 and for those ten areas having large fleet concentrations listed in Table 7. The following example will illustrate this. In Europe the actual captain shore billets include forty-five 1000 designator, fifteen 1050 designator and six 1110 designator billets (refer to Table 31 in Appendix E). From Tables 10, 11, 12 and 13 the following proportions are developed: $232/552$ or 0.42 for 1000 designated captain billets; $106/249$ or 0.43 for 1050 designated captain billets; and $(227 - 22)/227$ or 0.90 for 1110 designated captain shore billets. These fractions are then multiplied by the number of billets, forty-five, fifteen and six respectively. Summing these products yields 30.72 which is rounded to 31 and represents the shore composite number of captain billets SWOs are required to fill in Europe. The procedure was the same for the European sea billets except that 1110 sea billets are manned at 100%; hence the $(227-22)/227$ 1110 captain OMP shore correction factor was not applied. This yielded a total of 1.85 which when rounded to two reflects the composite number of sea billets in Europe 1110 designated captains are required to fill. Adding the sea and shore composites (31 and 2) equals 33, the total number of European billets SWO captains are required to fill. The results of the individual nineteen locations from Appendix E were aggregated into Tables 14 and 15. The figure of 33 billets derived in the above example is recorded in column one of Table 14.

These two tables provide some insight as to the numbers of billets within each geographic location. Of particular note are both the large numbers of billets in the ten fleet

TABLE 14

Geographical Analyses of Billets by Grade. SWOs are Required to Fill in Non-Fleet Concentration Areas

<u>AREA</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
CONUS *	111	259	318	542	153	59
Washington, D.C.	260	354	159	122	35	11
Alaska	0	1	0	1	1	0
Europe	33	63	38	38	4	5
Asia	19	33	28	24	15	11
Africa	0	2	1	2	0	0
Central/So. America/ Caribbean Islands	11	24	21	20	11	4
Australia, New Zea- land and Pacific Islands	1	1	1	0	0	0
Canada	1	0	2	0	0	1
GRADE TOTALS	436	737	568	749	219	91

* Note: Does not include Washington, D.C. and Fleet Concentration Areas

TABLE 15

Geographical Analysis of Billets by Grade SWOs are
Required to Fill in Fleet Concentration Areas

<u>AREA</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Newport	17	37	56	131	26	14
Norfolk/ Virginia Beach	103	226	333	395	448	471
Charleston	16	45	72	112	114	144
Mayport	11	42	66	110	130	119
San Diego	77	198	294	482	403	439
Long Beach	7	29	38	62	61	51
Alameda/Oakland San Francisco	18	31	38	64	88	45
Hawaii	28	71	59	90	67	86
Guam	4	4	4	6	15	12
Yokosuka	6	28	25	34	50	63
GRADE TOTAL	287	711	985	1486	1402	1444

concentration areas and also the numbers of billets not in the non-fleet concentration areas which require PCS moves to transfer between the two. As may be readily discerned from Table 14 the vast majority of billets not in the fleet concentration areas are in Washington, D.C. and other CONUS areas. The portion of shore duty billets in Washington, D.C. increases with each paygrade. The magnitude of the Washington requirement may be seen by the fact that forty-six percent of all captain shore tour billets are in the Washington, D.C. area.

While a discussion of the fleet and non-fleet concentration areas and billet data by homeport has occurred, a further breakdown specifically for department head billets follows. The split-tour policy which requires that officers transfer to a second department head tour after eighteen months makes it important for PCS cost savings that these tours be served in the same homeport. An analysis of the location of the department head billets is important to test this. Table 16 shows a breakdown of all department head billets by homeport and split-tour half. An important constraint that was introduced in Chapter III is that all officers be afforded the opportunity to serve on a cruiser/destroyer/frigate (CRUDES) type ship.

Since first and second half billets total 541 and 483 respectively, it may be observed from Table 16 that those individuals serving half their split tour in San Francisco, Concord, Seattle, Sasebo, Guam, Subic Bay, Key West, Panama City, New York City, and Earle will have to move at least once since there are no CRUDES type ships in these homeports. Couple this with large billet mismatches in several locations between the first and second department head tours and the number required to move between tours becomes even larger. In Pearl Harbor, for example, the ratio 34/16

TABLE 16

Breakdown of Department Head Billets
by Homeport and Split Tour Half

West Coast										
Split Tour Half	SDGO	LBCH	SF	CONCORD	SEAT	PEARL	YOKO	SASEBO	GUAM	SUBIC
	141	39	6**	7**	5	34	16	2**	6**	
	139	22	23**	14**		16	11	1**	3**	3
East Coast										
Split Tour Half	KEY	WEST	PCTY	MPT	CHASN	NORVA	PHIL	NYC	EARLE	NPT
			1	73	62	117	11	2**	3**	16
				27	46	160	4	1**	6**	1
	6									

**CANNOT RETOUR TO SAME HOMEPORT (NO CRUISER-DESTROYER SHIPS PRESENT)

Abbreviation Key

SDGO	- San Diego	YOKO	- Yokosuka	NORVA	- Norfolk/
LBCH	- Long Beach	SUBIC	- Subic Bay, R.P.	PHIL	- Virginia Beach
SF	- San Francisco/	PCTY	- Panama City, FL	NYC	- Philadelphia
SEAT	Alameda/Oakland	MPT	- Mayport	EARLE	- New York City
PEARL	Seattle	CHASN	- Charleston	NPT	- Earle, N.J.
	Pearl Harbor				- Newport

TABLE 17

Breakdown of Engineering Department Head Billets
by Homeport and Split Tour Half

WEST COAST									
<u>Tour Half</u>	<u>SDGO</u>	<u>LBCH</u>	<u>SF</u>	<u>PEARL</u>	<u>YOKO</u>	<u>SASEBO</u>	<u>GUAM</u>	<u>CONCORD</u>	<u>SUBIC</u>
First	56	15	1**	11	5	1	3		
Second	41	5	6**	6	4			7	1

EAST COAST					
<u>Tour Half</u>	<u>MPT</u>	<u>CHASN</u>	<u>NORVA</u>	<u>PHIL</u>	<u>NYC</u>
First	24	20	48	3	1
Second	10	14	50	2	

<u>Tour Half</u>	<u>NYC</u>	<u>EARLE</u>	<u>NPT</u>
First			4
Second		3	1

**CANNOT RETOUR TO SAME HOMEPORT (NO CRUISER-DESTROYER SHIPS PRESENT)

Abbreviation Key

SDGO	- San Diego	YOKO	- Yokosuka	NORVA	- Norfolk/
LBCH	- Long Beach	SUBIC	- Subic Bay, R.P.	PHIL	- Virginia Beach
SF	- San Francisco/	PCTY	- Panama City, FL	NYC	- Philadelphia
PEARL	- Alameda/Oakland	MPT	- Mayport	NPT	- New York City
	- Pearl Harbor	CHASN	- Charleston		- Newport

indicates thirty-four first half department head tours exist, and only sixteen second half department head tours exist. The same holds true for Mayport (73/27), Philadelphia (11/4) and Newport (16/1). In fact, ninety of the 483 second half department heads (or almost 20%) will have to change homeports at the absolute minimum.

Having completed the geographical analysis of billet locations the next analysis concerns past tour lengths to determine the presence of trends or relationships among them. This will be discussed in Chapter VI.

VI. HISTORICAL TOUR LENGTH ANALYSIS

The data base used in this analysis was the Officer Longitudinal Master File or OLMF. This data base consisting of Navy officers of all designators both active and inactive is maintained by the Naval Military Personnel Command and represents individual officers' service history, qualifications attained and schools completed. These multiple entries are updated periodically and each subsequent entry represents more complete, up-to-date information than does the previous one. Due to file construction limitations, only the seven most recent past duty stations are included. While this detracts from the total record, the magnitude of personnel policy changes which have occurred during an officer's last seven tours makes any data older than that too remote to remain relevant.

A. TOUR LENGTH ANALYSIS OF KEY TOURS

In an attempt to validate actual tour lengths over a period of time it was decided to concentrate initially on the executive officer and commander commanding officer tours. These tours were chosen because they are the two central ones of the four focal points of development. The first step was to extract from the data only the most recent entry of each surface warfare officer. This yielded a data set of 16942 records of individual SWOs. In each record the information of most value were the seven previous tours,¹ beginning and ending dates with corresponding Navy Officer

¹This represents the maximum number capable of being held in the file. A more junior officer who had served fewer than seven tours would have all his tours indicated in his record. Tours served in a DUINS capacity are not included in these tours.

Billet Classification (NOBC) for each tour. This four digit code identifies the qualitative requirements of each billet. These codes are listed and defined in the Manual of Navy Officer Manpower and Personnel Classifications, volume 1, NAVPERS 15839E.

a. Executive Officer Tour

Utilizing the NOBC "9228" identifying the Executive Officer (Afloat) billet, 3185 observations were selected from the data set. For each individual filling these billets the tour ending date, the number of months of commissioned service at tour start and the tour length were calculated. Examining the actual data retrieved revealed that some months of commissioned service (MCS) at tour start were outside the range normally associated with the standard executive officer tour. It was hypothesized that these represented XO tours served by LTs or by senior CDRs following a command tour. Because neither of these has a separate NOBC the hypothesis was made that restricting the months of commissioned service to the approximate seniority of LCDRs and junior CDRs would effectively isolate the tour required. More exactly, billets filled by officers with less than nine years or more than eighteen years of commissioned service at tour start were omitted.

Also some missing or negative tour lengths were found in 663 records. Since these were obviously due to incorrect or incomplete data insertions they were deleted. The final result was a sample of 2522 executive officer tours, down from the original 3185, representing a drop of 20.8 percent. An average tour length was computed for tours completed in the same year. Information for the last fifteen years is included below as Table 18. The first row, e.g., is interpreted as follows: In 1969, 105 officers completed the LCDR/Early CDR Executive Officer Afloat tour.

They had an average of 146.8 months of commissioned service at the start of the tour and the average tour length was 18.3 months. Table 18 reveals a fairly consistent tour length over the period, while the MCS has fluctuated more. Even though variations have occurred, the XO tour has been relatively stable.

TABLE 18
LCDR/Early CDR Executive Officer Afloat Tour Length
Data

Year End	n	MCS	Tour Length (Months)
69	105	146.8	18.3
70	100	145.0	18.1
71	123	148.1	18.8
72	113	143.1	17.8
73	113	147.5	19.6
74	102	149.5	19.9
75	124	149.4	21.4
76	139	157.4	20.3
77	142	157.3	21.1
78	154	156.4	22.1
79	143	162.1	21.2
80	163	164.4	19.9
81	173	158.2	19.9
82	186	157.6	20.2
83	228	160.0	20.1

b. Commander Commanding Officer Afloat Tour

The method utilized for the CO tour is very similar to that used for the XO tour with one exception. For the CO tour two NOBCs are germane: 9222 and 9235. NOBC 9222 is used to designate all afloat commands, without regard to grade. NOBC 9235, specifically instituted on 1 July 1977 to reflect the CO afloat tour in the grade of commander, requires a formal command screening board approval which NOBC 9222 does not. Attempts to integrate data from the two NOBCs were unsuccessful because of the differing constraints. For this reason only the data from NOBC 9235 was actually used. The breakdown by year the tour ended, the number of officers completing tours, the average number of months of commissioned service at tour start and the average tour length in months are shown in Table 19.

TABLE 19			
Commanding Officer Afloat (CDR) Tour Length Data			
Year End	n	MCS	Tour Length (months)
79	23	198.3	20.3
80	67	196.2	24.3
81	85	202.8	22.9
82	101	208.5	24.2
83	74	213.1	23.3

As was the case with the XO data, missing or negative tour length values were prevalent as were miscodings suggesting actual tour completions in future years.

These types of errors (numbering 261) were deleted from the CO tour data. This left 372 data points from the original 633 observations. The small number of officers shown completing the tour in 1979 and 1980 is misleading as these reflect only the slow implementation of NOBC 9235 and not a diminished opportunity.

B. HISTORICAL SWO TOUR LENGTH ANALYSIS BY TYPE ASSIGNMENT

1. Approach

Having reviewed tour lengths for the two central focal points of development, the final stage in the historical analysis of SWO tour lengths centered around the use of the "type assignment code." Once again the data base used was the OLMF. Within it, the type assignment code differentiates tours served by type of duty (e.g. sea or shore) and also by location (e.g. Alaska, Hawaii, other OUTUS). The meaning of each type assignment code is given in Table 20.

The original SWO data subset previously described was the starting point in this data collection. Each observation was then subdivided into those tours already completed. This yielded a previous tours inventory of 62510 or an average of 3.7 tours per individual. This tour inventory was then reduced by deleting tour assignment codes no longer used and tours that started prior to 1968. This yielded a data set with 52151 tours, a decrease of 16.6% from the original SWO data set. A key component within the SAS program was the identification of the officer's paygrade at the time of each tour start. While this was essential, it was available only through the manipulation of six variables.

The goal of this specific analysis was to determine over time the progression of tour lengths by paygrade and tour assignment. Compiling this data base, the intention

TABLE 20
Type Assignment Classifications

<u>Code</u>	<u>Meaning</u>
A.	Alaska (Shore Duty)
B.	Sea Duty
D.	Deployed ship or squadron homeported outside U.S.
G.	Other non-military U.S. Government Agency
H.	Hawaii (Shore Duty)
O.	OUTUS (Shore Duty)
S.	Shore (Duty)

was to take note of consistently decreasing tour length trends and areas where stated tour length policy differed significantly from actual data. This way tour length or career path adjustment could be recommended where deemed necessary.

2. Results

The average tour length for Surface Warfare officers was found to be 23.43 months spanning the period 1970 to 1983. Since 1970 the yearly average increased steadily from 17.23 months in 1970 to 25.43 months in 1975. Since then the average length has remained relatively steady as shown in Table 21.

A stated objective of this study was to break this data down further to determine average PCS tour lengths by tour type and pay grade. The tour type breakdown is by the seven type assignment codes listed in Table 20. Subdividing the data of average historical tour length by paygrade

TABLE 21
Average SWO Tour Lengths

<u>Year</u>	<u>Number of Tours Completed</u>	<u>Average Length (Months)</u>
1970	2634	17.23
1971	3138	19.10
1972	3617	19.55
1973	3468	20.62
1974	3999	24.46
1975	4469	25.43
1976	3886	24.79
1977	3912	25.07
1978	3859	25.34
1979	3511	25.36
1980	3783	25.70
1981	3735	25.77
1982	3636	25.26
1983	2911	24.92

yielded the average tour lengths shown in Table 22. The number of observations in each cell is shown in parentheses. Not shown in Table 22 are the observations for Alaska and other non-military U.S. Government Agencies because their numbers were insignificant. The data in Table 22 may be compared favorably with the current tour length policy shown in Table 23.

However to gain a better understanding of recent trends which may exist in the various type assignments it is necessary to look at each one separately. For this portion of the analysis only recent data from 1979-1983 were used to

TABLE 22

Historical Average PCS Tour Lengths in Months
by Type Assignment and Paygrade

<u>Type Assignment</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	20.15 (905)	20.75 (2527)	19.87 (5793)	20.17 (6573)	19.85 (4189)	28.90 (8564)
Deployed ship or squadron homeported outside U.S.	19.85 (163)	19.43 (374)	18.41 (759)	18.77 (626)	18.41 (478)	24.46 (661)
Hawaii (Shore)	25.17 (98)	32.25 (210)	31.58 (273)	27.14 (129)	18.78 (76)	20.20 (14)
OUTUS (Shore)	24.33 (299)	25.28 (716)	23.62 (1195)	20.29 (766)	18.11 (389)	17.14 (103)
Shore (Duty)	24.10 (1729)	27.76 (3460)	27.13 (5111)	23.81 (3398)	21.22 (1683)	16.56 (222)

TABLE 23

Surface Warfare (111X) Officer
Tour Length Policy, in Months

<u>RANK</u>	<u>TOUR</u>	<u>DESCRIPTION</u>	<u>SHORE</u>	<u>SEA</u>	<u>REMARKS</u>
ENS LTJG LT	Initial Sea	Junior Officer		30	Sea Tour follows basic SWOS (4 months)
	First Shore	TRACOM, NPS, Staff, etc. SWOS Dept Head Sch	24 8		Viable with billets
	Second Sea	Normally two, 18 month tours (split)		18/ 18	New construction varies
LCDR	Shore	Pre XO: Staff, etc. TRACOM, NMPC, etc.	24		
	Sea	XO		18	If no pre-XO duty at sea, then expect 18 months at sea as past-XO
	Shore	Post XO	24	(18)	
CDR	Shore	Staff (Pre/Post Cmd) Command	24-36 27		
CAPT	Sea	Major Command		24	18 months if followed by sequential command
	Sea Sea	Sequential Command Staff		18-24 18-24	
	Shore Shore	Major Command Staff	24 24-36		

provide a more relevant analysis which would reflect more the current policies. Only the three type assignments with the largest number of observations were examined. These were Sea, OUTUS Shore and Shore (Duty), and the results are given in Tables 24, 25, and 26. The numbers in parentheses represent the number of observations in each cell. Each of these three tables are discussed in turn.

Table 24 reflects a steady or slightly increasing tour length trend over the years 1979 to 1983 for all grades except LCDR, LT and LTJG. Yet these exceptions are above the 18-month tours prescribed for the sequential initial sea tour and the department head tours (see Table 23). The CDR tours largely representing the CO tour is increasing in length towards the 27-month policy instituted in 1982. All tour lengths reflect stated policy and no rapidly decreasing trends are evident.

Table 25, addressing OUTUS Shore tours shows that all documented tours are less than the DoD stated goal of thirty-six months even though these have the greatest stability of the three type assignments. Of note are the small number of tours the analysis is based on in many paygrades. It is not surprising the ENS numbers are so small since at this career point they should be serving their initial sea tour. These tour lengths reflect to a large extent the need for SWOs to rotate back to sea duty for the next professional development stage and not remain ashore for extended periods.

Table 26 displays the Shore (duty) data, and results parallel those in OUTUS Shore tours, although tour lengths are shorter. As in Table 25, tour lengths generally increase with seniority yet decrease with captains. The steadily decreasing trend for LT tour lengths does not appear to support NMPC contentions that due to the department head school backlog LTs are spending longer tours

TABLE 24
Historical Analysis of Sea Duty Tour Lengths
By Year Ended and Paygrade

<u>YEAR</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
1979	24.24 (54)	23.56 (141)	22.86 (303)	20.79 (493)	19.57 (274)	31.16 (677)
1980	22.87 (61)	23.93 (198)	22.25 (365)	21.12 (502)	18.90 (288)	31.84 (786)
1981	21.85 (55)	23.44 (162)	20.74 (416)	20.63 (496)	20.90 (267)	32.48 (772)
1982	22.32 (56)	24.00 (175)	19.98 (416)	19.79 (491)	22.38 (324)	31.24 (868)
1983	22.96 (54)	25.51 (137)	20.02 (308)	19.46 (399)	20.45 (246)	32.58 (477)

TABLE 25

Historical Analysis of OUTUS Shore Duty Tour Lengths
By Year Ended and Paygrade

<u>YEAR</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
1979	27.78 (23)	32.60 (47)	26.68 (59)	24.35 (37)	21.87 (23)	* *
1980	24.69 (29)	28.15 (80)	27.91 (95)	24.29 (56)	27.07 (27)	* *
1981	* *	28.03 (29)	27.41 (59)	27.31 (26)	* *	* *
1982	* *	29.58 (33)	23.73 (41)	23.86 (28)	* *	* *
1983	* *	30.87 (30)	28.62 (34)	25.65 (17)	* *	* *

* Number of observations is less than 15.

TABLE 26
Historical Analysis of Shore (Duty) Tour Lengths
By Year Ended and Paygrade

<u>YEAR</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
1979	25.66 (122)	25.64 (248)	28.54 (388)	25.86 (237)	22.45 (101)	16.00 (28)
1980	26.07 (122)	26.56 (252)	30.16 (333)	24.25 (211)	22.36 (138)	* *
1981	25.98 (122)	28.10 (301)	30.30 (348)	23.95 (230)	22.13 (170)	* *
1982	26.01 (124)	29.14 (249)	28.61 (283)	22.46 (212)	21.96 (117)	* *
1983	26.16 (131)	27.97 (295)	27.26 (266)	21.32 (192)	23.44 (132)	* *

* Number of observations is less than 15.

ashore waiting for a quota to become available. This claim coupled with a steadily rising retention during this period seems to be at odds with the findings here. As was the case in Table 25 ENSs are serving at sea and so not enough data in CONUS is generated.

These findings generally are in concurrence with the SWO tour length policy shown in Table 23. Sea duty tour lengths for ENSs through LCDRs are all approximately two months in excess of stated requirements (30, 18, 18, and 18 months for the four grades). The disparity between the NMPC advertised LT CONUS Shore tour length trend and the data cannot be explained. The remaining tour length findings reflect the primary need of SWOs to serve at sea and not remain ashore.

Having thus examined tour lengths from a historical perspective, an examination of alternatives follows. Two specific career pathway changes are discussed in the next chapter.

VII. PROFESSIONAL DEVELOPMENT ALTERNATIVES

At this point in the study it is important to digest the previous work and look for alternatives; means by which the SWO career path may be made more efficient. This must be considered while continuing to maintain at least the same level of professional development.

A. REDUCING COMMAND OPPORTUNITY

Although any hint of reduction of the commander command opportunity may seem blasphemous to the traditionalist surface warfare officer, its potential impact should be assessed. The fact that the demanding preparatory career path coupled with the stringent qualification and screening procedures do not preclude yearly detachments-for-cause of commanding officers suggests that requirements could be more stringent. Command opportunity has ranged between 45 percent and 55 percent for several years. Reducing this opportunity significantly (by about half to 25 percent for example) would destroy the traditional unwritten law that to promote to Captain requires previous command at sea experience. This decreased opportunity would be caused by increasing the command tour length, doubling it in the example given. The impacts of halving command opportunity would be these:

1. General Impact

- a) It reduces the opportunity for SWOs to reach the stated community goal of "Command at Sea."
- b) The need for all to "ticket punch" a command at sea billet would be alleviated.

- c) Increased assignment emphasis would be placed on subspecialty skills.
- d) With a 60 percent selection opportunity to Captain and only a 25 percent command opportunity, selection boards would have to reconsider their criteria for selection and this should open the way for those "best fitted" and truly outstanding subspecialists to be selected.
- e) It could negatively affect retention for both screeners and non-screeners:
 - i) for screeners because it would mean more family separation time for the longer duty at sea.
 - ii) for non-screeners because of the current stigma of not being command screened.
- f) It could positively affect retention for both groups as screeners perceive their increased value to the Navy and non-screeners realize decreased family separation and the opportunity of further development of a specific subspecialty area in which they could gain the reputation of being acknowledged experts.
- g) It could be a disincentive to junior officers to remain in the Navy or enter the SWO community, since command at sea has always been the hallmark of the Surface Warfare community.

2. Command Impact

- a) Tour lengths for those in command would double to approximately four years providing leadership and policy making continuity. The implication here is that long range planning and material readiness would receive more emphasis as commanding officers would have more control over both and perceive more accountability for the "health" of the ship. The result could be that the fleet's battle readiness would improve.

- b) Instead of increasing tour lengths, sequential CO tours in another ship either right away or following a professionally expanding War College tour could be effected. This could increase the number of PCS moves but would reduce the continued stress of command and permit sharing of command knowledge at the War College and use of that knowledge during the follow-on CO tour.
- c) Would reduce opportunity for those officers command screened to gain valuable professional experience both at sea in other important billets and ashore (Battle Group Staffs, OPNAV, etc.).

3. Non-command Impact

- a) A number of officers who previously had records good enough to screen for command, would be assigned to other at sea billets demanding experience and expertise.
- b) It would provide improved subspecialty utilization during the time an officer would have spent at sea as CO.
- c) For those officers not screened, longer tour lengths would be the norm as the need to get back to sea for a command tour would no longer apply.

4. Post-command Impact

- a) The supply of post command officers would drop by one half and the availability of them for follow-on tours would occur two years later than before due to the longer CO tour. This could effectively make post-command commanders a scarcer quantity than is now the case at a time when requirements for them are increasing.
- b) It would reduce opportunity for post command officers to feedback their experience to others (those billets currently identified as requiring post

command officers would have to be filled by other officers).

- c) It would decrease major command selectivity which currently stands at approximately 50 percent.
- d) It would mean that a very high proportion of post-command officers would go back to sea for a two year major command tour and some also for an 18 month sequential command tour. This could mean seven and a half years of sea duty in a period of less than ten years.

The PCS implications of this are that less opportunity for command means longer command tours for a given number of ships, which in turn permits longer tours elsewhere. Both of these increase personnel stability, unit or staff cohesiveness and reduce officer PCS moves and costs.

B. AN ACROSS-THE-BOARD OP/ROT MOVE CATEGORY EXTENSION

The immediate impact of a change in tour length is deceptive; an example will illustrate this. Assume that all operational (OPS) and rotational (ROT) tours in the SWO community were 24 months long for a tour cycle of eight quarters. Now assume that on a certain date all of these tours were to be extended by six months, the new tour rotation cycle would now be ten vice eight quarters long. The impact would be no moves in the first six months and thereafter twenty percent fewer moves annually. This is illustrated in the following equation:

$$\begin{aligned} 1 - (\text{old tour length} / \text{new tour length}) &= 1 - 24/30 \\ &= .2 \\ &= 20 \text{ percent} \end{aligned}$$

The conclusion reached is that the number of moves and the associated costs would be cut by half the first year and 20

percent every year thereafter. However, this is not the case.

While savings the first year are 50 percent, the second year no savings would be realized, because the same numbers of personnel would be rotated per tour rotation cycle as before. The change is that the cycle is now ten quarters vice eight. While the savings in a completely steady state system will be 20 percent over time, the savings realized will actually be 100 percent for the first two quarters and no savings for the next eight quarters before the cycle repeats itself.

C. VALIDATING THE INDIVIDUALS ACCOUNT

The individuals account, comprising students, trainees, midshipmen and the TPS&D (Transients, Patients, Separations and Disciplinary) Account, do not directly figure into the PCS equation but the allowed size of it and the actual numbers of officers in it impact on officer career paths. When billet requirements and community inventories are compared everyone is assumed to be in a billet. If this is the case then the billet inventory will match the officer inventory. Although it is possible for a grade mismatch to still exist, the chances are less and the people can be detailed to fill all billets. If, however, excess people are in the individuals account, for example due to extra training requirements, then a supposedly fully manned community has, in effect, lost those excess people who are undergoing valid, required training. Therefore a number of authorized billets equal to the number of excess officers in the individuals account are vacant. A required increased attendance at the War College by post-command officers is a good example of this. Another example of this is the increased specialty training for SWOs. In particular the

LCDR and CDR grades have oversubscribed individuals accounts. The 1979 URL Study offered the following explanation:

An example of an uncompensated requirement is to be found in the CDR grade where many officers enroute to command steam ships now have a PCO training pipeline six months long due to the addition of the senior officer ship material readiness course. 10 percent or more of our officers are transients or trainees in some grades where 6 percent is allowed.

While the CNO-directed reduction in enroute training implemented in 1982 reduced the numbers of officers in the individuals account, differences still exist. This disparity between "billets and bodies" masking the community's usable personnel inventory is one of the factors creating shortages.

The overall shortage in the Surface Warfare Community has serious implications. Because there are fewer officers than required, SWOs spend a larger portion of their time at sea, as sea billets necessarily have the highest priority. As a greater percentage of time is spent at sea, education and experience gained ashore suffer. Postgraduate education and its application during subsequent subspecialty tours is underutilized since insufficient time is available for shore duty. The equally high priority shore jobs such as recruiting and Naval Academy/NROTC/OCS/SWOS instructors will also compete for fewer available officers.

D. ALTERNATIVE CAREER PATHS

A key objective of this study was to recommend modification of the career path to decrease the frequency of moves or increase the efficiency of officer movements, if deemed necessary. In Chapter IV current career paths have been depicted with seven groups of pathways which aid

significantly in looking at the number and progression of tours and, therefore, the number of possible moves in the first twenty plus years of a career.

Reflecting back to the discussion in Chapters III and IV about career paths and the interrelationships of tour length, selectivity and opportunity, several points require reiteration:

1. The SWO career path is essentially an alternating progression from sea to shore duty and back for the primary purpose of career development with retention a prime consideration.
2. Successive tours in a career path should be linked together for overall career development purposes and to plan for geographic location changes. The geographical billet analysis brought forth quite clearly that most officers cannot fulfill their professional development requirements and meet the needs of the Navy by remaining in the same geographical location. Understanding this, a possible avenue to pursue is for the assignment branch to consider the availability of a follow-on assignment in the same location while the prior assignment is being considered. This linking together of subsequent tours in the career pathway can be both cost-effective and meet individual and Navy needs.
3. For this same reason the use of subspecialty utilization should be given more attention during sea duty tours. An officer who has received an education should apply that during operational tours. One example is that of an ASW coded officer. Application of his expertise is best served aboard a unit or staff with ASW capabilities and responsibilities. Similarly, though few coded billets at sea exist, the computer systems trained individual would be better utilized on a NTDS ship or staff than elsewhere.

1. Early Department Head School Career Path

The early department head school career path is one of the recommendations that has been proposed to solve many of the difficulties facing the SWO community. LCDRs are currently serving in LT billets on the second half of their department head split tours and occasionally during the first half. According to the SWO community manager, in FY 1984 197 LCDRs were "down-detailed" to fill these LT billets. This "down-detailing" of officers to billets junior to their rank causes these officers to be unavailable to fill existing LCDR billets. This perpetuates the mid-grade officer shortfall.

The path begins as displayed in Figure 7.1 with completion of the SWO (Basic) course (Tour 0A) and the current standard thirty month division officer tour (Tour 1E). At this career point, with three to three and one half years of commissioned service, the officer attends Department Head School (Tour 2A) and when finished proceeds to his initial department head tour (Tour 3E) for the standard eighteen months.

However, at this juncture two career path options are available. The first is to have the officer undertake his second department head tour (Tour 4E or 4F) completing it at about the seven and a half years of commissioned service point, while still a LT. The major benefit of this option is that the officer would be available to fill LCDR billets the entire time he is of that rank. Postgraduate School (Tour 5B) would then follow the department head tours (Tours 3E and 4E or 4F). The officer would do an immediate payback tour (Tour 6C or 6D) and best utilize and reinforce his newly gained knowledge. Following this the LCDR sea tour (Tour 7E or 7F) would be next. The next node (Tour 8E) represents the career path point where the two options rejoin. This is the XO tour and is 18 months long. A

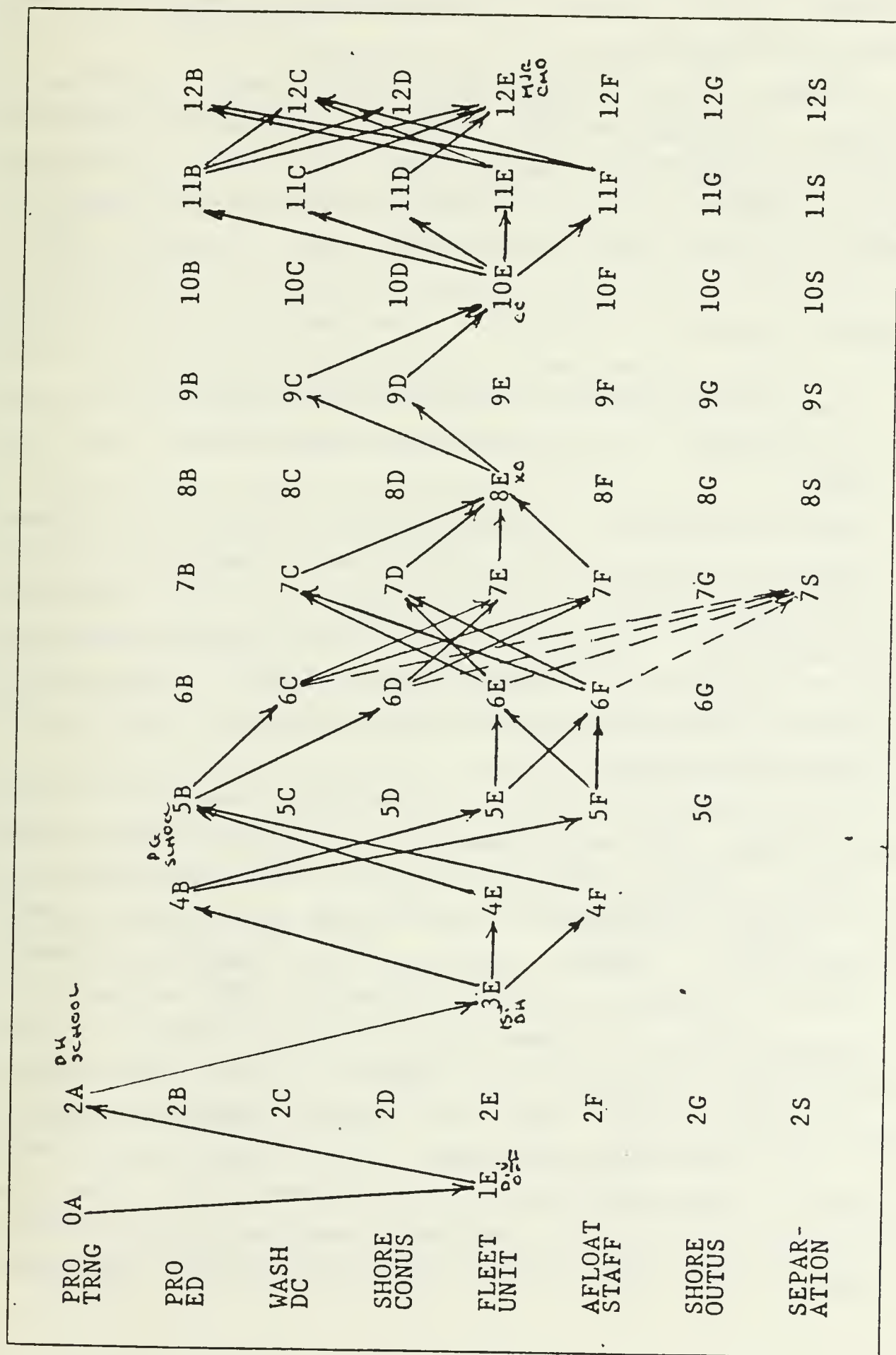


Figure 7.1 Network Representation of an Early Department Head School Career Path

second payback tour (Tour 9C or 9D) follows and after that, this pathway group is exactly like the Major Command Pathway discussed in Chapter IV.

In the second option the officer goes directly to Postgraduate School (Tour 4B) and on completion returns to his second department head tour (Tour 5E or 5F). The next tour is the LCDR sea tour (Tour 6E or 6F) and is followed by a payback or subspecialty utilization tour (Tour 7C or 7D). As discussed above the two options rejoin in the eighth tour with the XO assignment (Tour 8E). The benefits of attending PG school at this career point, during the fourth tour, are:

1. After four years of sea duty in four and a half years it provides a retention-motivated break from sea duty.
2. With attendance at Postgraduate School the officer incurs at least three and one half years additional obligated service at just about the same time both his initial obligation and his two year department head obligation are expiring. This Postgraduate School obligation will not expire until roughly the eight plus year point.
3. Hard-charging officers are rewarded earlier with the challenge and responsibility of a department head tour. These officers could be told they will be ordered to Department Head School if a seat becomes available. Then, if the detailers have someone cancel a quota this more junior officer could be ordered into the vacant slot. Although short prior notification might be undesirable, many officers may view this (being one of the few of their YG chosen) to be a positive motivator. This process would help assure that every seat in Department Head School is filled, thus paying dividends down the road in making sure those in their department head tours are

relieved on time and then become available as LCDR personnel assets.

This alternative is attractive because it can utilize to great advantage the need for at least 20 percent of the department heads to shift homeports between tours. Starting Department Head School early, going to Postgraduate School early and linking the next two sea tours (Tours 5E or 5F with 6E or 6F) have the potential to save one PCS move and thus PCS funds.

2. Technical Subspecialty Career Pathway

The rapidly increasing need for technical subspecialists in the Navy necessitates a look at how to utilize them and the education they received better than is currently done. The technical subspecialty career pathway is an answer to this problem. This pathway will provide early postgraduate technical education and then continue to use this education both afloat and ashore to build on previous experience. The end product will be an officer who is operationally current and has through repeated utilization of his subspecialty area evolved as a "blue-suit" consummate expert in his field by the time he reaches the grade of captain. This expertise may then be applied in the Weapons Systems Acquisition Management (WSAM) area as a program manager or in a host of other jobs requiring this technical experience both at sea and ashore.

This pathway begins with a thirty month division officer tour (Tour 1E), Postgraduate School (Tour 2B), Department Head School (Tour 3A) and the initial department head tour (Tour 4E) as shown in Figure 7.2.

At this point the pathway begins to differ from those developed in Chapter IV. Tours 4E, 5C/5D and 6E are treated together as a package. Tour 4E serves as the

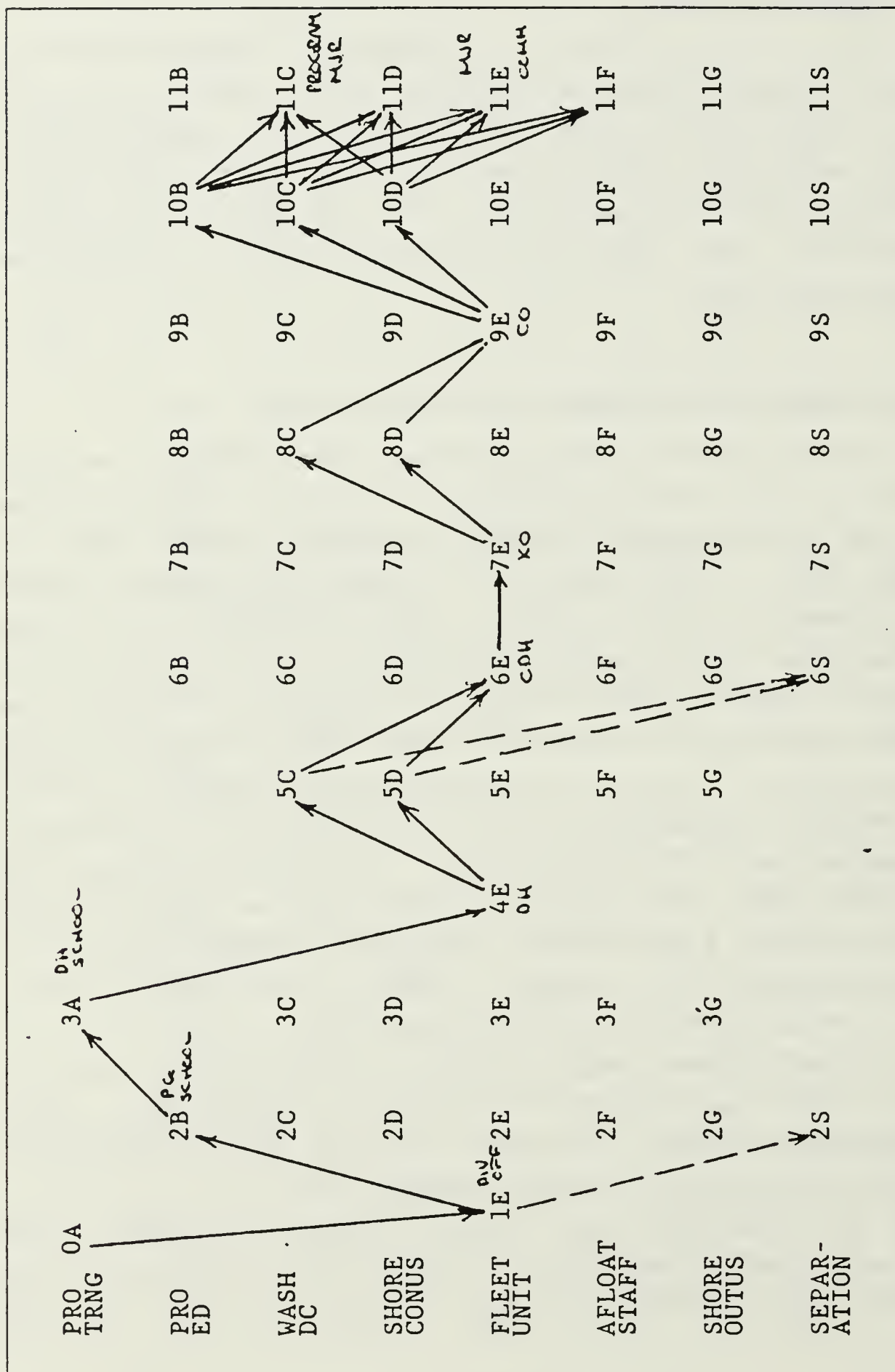


Figure 7.2 Network Representation of a Technical Subspecialty Career Pathway

opportunity for this officer to apply his postgraduate knowledge to real world shipboard use during a fifty percent longer, twenty-seven month initial department head tour. This experience is then employed ashore, still in the same subspecialty area (Tour 5C or 5D). The purpose of this tour (Tour 5C or 5D) is to share this experience with those ashore and learn from them, continuing to build area expertise. It is envisioned that this thirty-six month long tour would permit an officer to fully learn his job in his first year and then serve in that capacity for more than two full years, thus providing a continuity of technical "blue suit" corporate knowledge not possible in a two year tour. Another twenty-seven month sea tour (Tour 6E) follows shore duty (Tour 5C or 5D). This job would be drawn from either the second half department head list or the LCDR sea tour list and would call upon this officer's collective talents. Examples of the progression of the three tours just discussed might include FF-1052 class frigate Engineer Officer to the Naval Sea Systems Command to Main Propulsion Assistant on an aircraft carrier. For an antisubmarine warfare specialist these three tours might progress from Combat Systems Officer on a DD-963 class destroyer to the ASW Systems Project Office to Combat Systems Officer on a CG-26 class cruiser. For a communications engineering expert it may begin as a Ship's Control Officer on an FFG-7 class guided missile frigate, progress to a job at the Naval Electronics Systems Command and return to sea as assistant communications officer on a fleet commander's staff. For the Command, Control and Communications (C³) expert it may begin as an Operations Officer on a frigate, move to a C³ job in OPNAV and then return to sea as Operations Officer on a guided missile cruiser. The purpose here is to tie these three tours together so that when an officer completes Tour 6E he has been working or studying in his subspecialty area.

for a minimum of ten years in the first thirteen years of his career (this includes at least one year as a division officer).

The follow-on tour is the standard eighteen month XO tour (Tour 7E). This utilizes his experience at sea and offers the officer a broader perspective than gained while building his departmental background. A second subspecialty utilization tour (Tour 8C/8D) occurs at this point further strengthening his area expertise. Command (Tour 9E) and a third payback tour (Tour 10C or 10D), and possibly the senior course at the Naval War College (Tour 10B) occur next and lead to the eleventh tour, that of program management (Tour 11C or 11D), major command at sea (Tour 11E), or ashore tours (Tour 11c or 11D). These last three are captain billets requiring tremendous managerial skills, leadership ability, and technical knowledge and experience.

This is the true strength of the technical subspecialty career pathway. By recurring subspecialty utilization at sea and ashore both the ship or staff served and the supporting shore establishment have been the beneficiaries of the officer's information exchange. Although not all technical subspecialty areas have similarly applicable sea billets, many do and this pathway is applicable to them.

It should also be noted that in this pathway the CO tour (Tour 9E) is served during the ninth tour. Lengthening the fourth, fifth and sixth tours deleted a tour. The net result is that the career path is more efficient for the reasons discussed and because of the increased continuity possible with the longer tours. Additionally, the deletion of one tour means one less PCS move for every officer in this pathway.

These alternative avenues represent ways in which the SWO community may continue to develop its officers professionally as PCS constraints become more severe. These

career development alternatives hold the needs of the Navy
as foremost.

VIII. DISCUSSION AND CONCLUSIONS

This study has examined the Surface Warfare Officer career path to assess the feasibility of extending tour lengths and the impact this will have on professional development. A framework for assessing the relationship between PCS moves and SWO career paths has been initiated through the breakdown of the career paths into seven groups of career pathways using network representation. Also included in this study are a geographic breakdown of the billets SWOs are required to fill and a historical analysis of SWO tour lengths.

A. TOUR LENGTH INTERRELATIONSHIPS

The closed personnel system in which the Navy operates requires that alternative policies consider the effect that an action on one portion of the SWO community will have on the rest of the community. These interrelationships are essential to consider and account for to ensure minimum professional development is achieved so that readiness may be maintained and the leaders of tomorrow's Navy receive the necessary experiences.

1. The Effect of Lengthening the Initial Sea Tour

The interrelationships between tour lengths for the various tours may best be illustrated by an extension of the initial sea tour length. While the actual tour lengths and numbers in a year group would illustrate a real scenario, the numbers employed in this example were chosen to give round numbers and therefore easier visualization. Seven assumptions are made at the outset:

1. Tour progression consists of alternating sea-shore assignments.
2. Sea billets are manned at one hundred percent.
3. The number of initial sea tour billets is one hundred.
4. Retention is 46% and all separations occur at the end of the second tour, a shore tour, which is two years long.
5. The department head requirement is thirty billets. Billet opportunity is one hundred percent.
6. A second two year shore tour follows the department head tour.
7. The second shore tour is followed by an XO tour with sixty percent billet opportunity.

Within this example, two policies will be compared. A three year initial sea tour representing current policy will be lengthened to four years. The impact of this policy change on sea and shore manning, other tour lengths and billet opportunity will be assessed. For purposes of clarity, those serving a three year initial sea tour will be referred to as group A personnel while those serving a four year tour will be called group B personnel.

With a three year tour the annual accession requirement is 33: $(100 \text{ billets}) / (3 \text{ year tour}) = 33 \text{ billets/year}$. When this tour length is extended to four years the annual accession requirement drops to 25: $(100 \text{ billets}) / (4 \text{ year tour}) = 25 \text{ billets/year}$ or a drop of 24%. This 24% decrease is significant for it means the annual accession requirement will decrease by 8, requiring eight fewer accession moves and saving PCS funds.

The net result of the loss of 54% of the officers at the end of the initial shore tour is that 15 of the Group A officers $(.46 \times 33)$ and 12 Group B officers $(.46 \times 25)$ are still in the system. These personnel are assumed to be

career personnel and will remain in the system for at least twenty years.

Since all career personnel will serve one department head tour the tour length for group A will be two years (30 billets/15 officers per year). The tour length for group B will be two and a half years (30 billets/12 officers per year). For both groups a second two year shore tour is then served followed by an XO tour for those who screen. The impact of billet opportunity and tour length for a given number of billets is explained next.

With eighteen XO billets and opportunity at 60%, 9 officers ($15 \times .6$) in group A and 7.2 officers ($12 \times .6$) in group B will screen for XO. This 60% opportunity will then translate into a two year XO tour for group A (18 billets / 9 officers per year) and a two and a half year tour for group B (18 billets / 7.2 officers per year).

Summarizing the length of time each group has served at the end of this XO tour: group A has served eleven years and group B has served thirteen years. The group A officer then serves a two year shore tour and both officers are now at the thirteen year point. Table 27 itemizes the tour lengths for the two groups. What conclusions can be drawn from this example?

1. Both groups meet the same sea billet requirements.
2. At the thirteen year point the group A officer has spent seven years at sea or 54% of his career, while the group B officer has spent nine years at sea or 69% of his career.
3. The group A officer has two additional years of shore duty than does the group B officer.
4. In the first thirteen years of service the group A officer has served six tours and the group B officer only five tours, thus saving one PCS move for all group B officers.

TABLE 27

Comparison of Subsequent Tour Lengths With
Differing Initial Sea Tour Lengths

<u>Tour</u>	<u>Group A</u>		<u>Group B</u>	
	<u>Sea</u>	<u>Shore</u>	<u>Sea</u>	<u>Shore</u>
Initial Sea Tour	3.0		4.0	
First Shore Tour		2.0		2.0
Department Head Tour	2.0		2.5	
Second Shore Tour		2.0		2.0
XO Tour	2.0		2.5	
Third Shore Tour		2.0		Not yet Served
<hr/>				
Totals				
Sea	7.0		9.0	
Shore		6.0		4.0
Overall	13.0		13.0	
Percentage of career spent at sea	54%		69%	

5. If the sea-to-shore rotation was continued, the group B officer would go to his command tour significantly later in his career than would the group A officer.

Not yet considered but essential is an assessment of the ability of group B personnel to man shore requirements. The assumption is made that group A personnel manned the shore billets with no one in excess. The initial shore tour billets number 33 so 8 of them would be gapped per year by the 25 group B personnel. During the second shore tour the 15 group A personnel completing their department head tour

fill the fifteen shore billets; while with group B personnel three billets would remain vacant since they have only 12 officers. During the XO tour the 6 group A personnel not screening for XO would fill the six shore non-XO billets. However, group B has only 4.8 personnel to fill these six billets so 1.2 billets would be gapped. The post XO shore tour is not considered in the shore billet assessment. This is only to simplify the example by considering both groups for the same number of years of commissioned service. The conclusion to be drawn is that through the eleven year point group B would have to gap approximately 28% of the shore billets while group A could fill them all.

One last issue should be examined. If the XO tour length was fixed at two years, how would that affect manning and XO opportunity? Since the assumption has been made that sea billets will be completely manned, no impact will be felt. With a two year XO tour 9 group B officers will be required annually, the same number as in group A. However, the 9 XOs in group A represent 60% of the year group while the 9 XOs in group B represent 75% of their year group. The issue illustrated here is that for different sized year groups to have the same tour length, the smaller year group must have a greater billet opportunity. In actuality five consecutive URL year groups are averaged to compute opportunity to dampen out these YG size effects. While the example sizes were based on smaller accessions for group B than for group A, the retention for both was assumed to be the same. In the real world if a year group has poor retention and the same circumstances apply, requirements must still be met and the smaller year group may have a higher opportunity.

2. The Impact of Billet Opportunity

As discussed previously, higher opportunity denotes lower selectivity and with it, at some point, must come

decreased readiness as quality diminishes. No quantitative data are available to support this, yet it is generally held to be true. This is one reason tour lengths are adjusted over time, to ensure continued selectivity. Current XO opportunity is 60% with an eighteen month tour. Due to the buildup towards the 600 ship Navy, additional XO billets could soon make XO opportunity 76% retaining the eighteen month tour length fixed. To hold this opportunity at the 70% level and thereby keeping selectivity at a high level XO tour lengths would have to increase to twenty months.

B. CONCLUSIONS

This study has conducted a critical review of billet and professional development requirements in the Surface Warfare Community to optimize the use of increasingly scarce Permanent Change of Station Funds. The two assumptions that:

1. PCS costs can be reduced by altering officer career paths to decrease the frequency of moves and
2. that career paths are driven primarily by professional development requirements

have been examined. The first has been shown to be true while in the second, move frequency and career paths were found to be driven by billet requirements as well. It should be emphasized that tour length and career path modifications should be made only after billet requirements have been considered.

Current Surface Warfare officer movement patterns have been aggregated into seven career pathways using a network representation. Within this framework it is possible to assess alternative career paths both in tour progression and tour length. Essential to the development of these pathways was the identification of the four focal points of

professional development: the major command tour, the commander command tour, the executive officer tour and the department head tour.

A historical analysis of SWO tour lengths was conducted for the previous fifteen years and also the most recent five year period. The data generally supports the current SWO tour length policy. Two alternate career paths were developed which increase the efficiency of the SWO career path and potentially save PCS funds.

1. The early Department Head School Career Path provides additional early responsibility, increases retention and optimizes the moves of those officers who need to shift homeports between their department head tours. This optimization occurs through the consideration of several successive tours and attempting to link these tours together to remain in the same geographical area whenever possible.
2. The Technical Subspecialty Career Path saves PCS funds, provides for near maximum utilization of area technical expertise both at sea and ashore and develops an officer who is a "blue suit" consummate subject matter expert prior to selection to captain. This is accomplished while maintaining the officer operationally current.

This study represents a first attempt at laying the groundwork to build a comprehensive PCS planning model. A method of computing the number of billets SWOs are required to fill in various geographic areas has been developed. An analysis of these required SWO billet numbers by geographical location confirmed that SWOs cannot remain in the same homeport for both sea and shore tours due to the numbers of billets SWOs must fill in non-Fleet Concentration Areas.

The following two recommendations require more research. It is felt that their development and implementation would

be of considerable value to both the Officer Professional development system and also the PCS accounting branch:

1. expand on this study and develop a comprehensive PCS assessment model that would consider detailed alternative professional development issues necessary to maintain the readiness of the SWO community.
2. identify the quality and quantity of experiences necessary to effectively operate ashore as a captain. Billet subspecialty requirements and utilization should be addressed.

APPENDIX A

GLOSSARY

ACCOMPANIED OVERSEAS TOUR: A tour of duty outside the continental United States during which dependents are authorized to and may accompany their sponsor.

BILLET: A specific military manpower space which is assigned qualifiers that define the duties, tasks and functions to be performed and the specific skills and skill level required to perform the delineated functions. (Note: billet connotes military requirement; position connotes civilian requirement.)

COMMAND OPPORTUNITY: The average opportunity for any officer to have at least one screened command in grade. It is obtained by dividing the average number of screened commands available per year by the average year group size. Tour length will affect command opportunity.

CONTINUATION: A measure of all community entries and exits.

DETAIL: To assign an officer to a billet.

DUTY UNDER INSTRUCTION (DUINS): An assignment to duty under instruction at a course or courses in which the cumulative duration is 20 weeks or more.

INDIVIDUALS: A Defense Programming and Planning category of manpower which includes military personnel who are not considered force structure manpower and consist generally of transients, patients, prisoners, holdees, students, trainees, and midshipmen.

MANDATORY MOVES: Accession, Separation, and Organized Unit moves.

MPN: Appropriations for "Military Personnel, Navy" which fund PCS travel. Detailer budgets are MPN funds.

NAVY OFFICER BILLET CLASSIFICATION (NOBC): A 4-digit code representing the functional description requirements of officer billets. An element of the code structure within the Navy officer classification system which is used to identify the officer billet requirements and the officer occupational qualifications acquired through billet experience.

O&MN: Appropriations for "Operations and Maintenance, Navy" which includes funds for per diem associated with TEMDUINS performed on PCS orders - training less than 20 weeks (TEMDUINS/TEMDFINSOPS). Placement Officer budgets are O&MN funds.

OFFICER MANNING PLAN (OMP): The policy instrument by which Navy establishes manning priorities and "fair shares" inventory available to the force structure. The plan was developed to manage the shortage of URL Lieutenants through Commander.

PERMANENT CHANGE OF STATION (PCS): The transfer or assignment of a member or unit from one permanent station to another (for duty of more than 6 months or under instruction of 20 weeks or more). This includes the change from home, or from the place from which ordered to active duty, to first station upon appointment, call to active duty, enlistment, or induction; and from last duty station to home, or to the place from which he/she entered the Military Service, placement upon the temporary disability retired list, release from active duty, or retirement. It also includes a

duly authorized change in home port of a vessel or mobile unit.

POSTGRADUATE EDUCATION: A course of study beyond the baccalaureate level which may or may not lead to the awarding of an advanced degree.

PRESCRIBED TOUR LENGTH: The standard period of time established for tours in specific locations.

PROJECT MANAGER: The individual within the Naval Material Command, bureaus, and offices responsible, within well-defined boundaries of time, resources, and performance requirements, for executing an approved project.

PROJECTED ROTATION DATE (PRD): Planned date of detachment from present duty station.

PROVEN SUBSPECIALIST: A URL LCDR, CDR, or CAPT selected by board action as having special value in a subspecialty community by virtue of range and depth of subspecialty experience and proven superior performance.

PROVEN SUBSPECIALIST: An unrestricted line officer in the grade of LCDR through CAPT who has been identified by a Subspecialty Selection Board as an experienced specialist and selected as "proven" based on the officer's demonstrated superior performance. Billets requiring and officers possessing a proven subspecialty code are designated by the following suffixes: C, proven at PhD level; M, proven at engineer's level; Q, proven at master's level; F, proven at functional education level; and, R, proven at significant experience level.

RETENTION: A measure of voluntary continuation in a community.

RETOUR: Subsequent assignment in the same geographic location.

SUBSPECIALIST: An officer who has one or more subspecialties.

SUBSPECIALTY: A technical or managerial field of interest which requires specialized professional skills or knowledge (obtained through various combinations of pertinent education, training, and/or experience) in support of a given mission or functional area.

SUBSPECIALTY CODE: An alphanumeric code used to identify officers and billets representing education and/or experience in a subspecialty. Detailed codes are contained in the Manual of Navy Officer Manpower and Personnel Classifications (NAVPERS 15839 series).

TRANSIENTS, PATIENTS, SEPARATIONS & DISCIPLINARY (TPS&D): That portion of total military manpower which is nonavailable for assignment to billets afloat or ashore for reasons other than training. Transients represent that average strength involved in Permanent Change of Station (PCS) moves between duty assignments. Patients and disciplinary strength represent that average strength which is nonavailable for reasons of medical or disciplinary causes. Separations strength reflects the average total of officer and enlisted personnel awaiting final separation from active duty. Together with students, trainees, and midshipmen, the TPS&D accounts comprise total Navy nonavailable strength as reflected in the Defense Planning and Programming Category (DPPC) entitled "Individuals."

TOUR OF DUTY: Military duty performed while assigned to a military installation or activity permanently located at a land station either inside the continental limits of the

United States (CONUS) or outside the continental limits (Overseas).

UNRESTRICTED LINE (URL): Officers of the line of the Regular Navy and Naval Reserve who are not restricted in the performance of duty.

WARFARE SPECIALIST: Within the unrestricted Line, an officer designated 111X (Surface Warfare), 112X (Submarine Warfare), 113X (Special Warfare), 114X (Special Operations), 131X (Aviation Warfare-Pilot), or 132X (Aviation Warfare-NFO).

APPENDIX B
DEPARTMENT HEAD SPLIT TOUR BILLETS

<u>First Tour</u>		<u>Second Tour</u>	
<u>Ship</u>	<u>Department</u>	<u>Ship</u>	<u>Department</u>
DD-945	OPS/WEPS	DD-945	ENG
DD-963	CS/ENG	DD-963	OPS
DDG-2	WEPS	DDG-2	OPS/ENG
DDG-993	ENG	DDG-37	OPS/ENG/CS
FFG-1	OPS/ENG/WEPS	DDG-993	OPS/CS
FFG-7	SCO/CS/ENG	FF-1037	XO
FF-1037	OPS/ENG/WEPS	CG-16	OPS/ENG/CS
FF-1040	OPS/ENG/WEPS	CG-26	OPS/ENG/CS
FF-1052	OPS/ENG/WEPS	CG-47	OPS/ENG
CG-47	WEP CONT	CGN	OPS/CS
MSO	XO	LHA	1ST/CS
MCM	XO	LKA	1ST
LHA	DCA	LPH	1ST/ENG
LKA	OPS/ENG	LSD	1ST
LSD	OPS/ENG	LPD	OPS/ENG/1ST
AGF	OPS	AGF	1ST/ENG
LST	OPS/ENG	LST	1ST
AO	OPS/ENG	AOE	ENG/1ST
AOE	OPS	AOR	OPS/ENG/1ST
AE	OPS	AE	ENG/1ST
AFS	OPS/ENG	AFS	1ST
BB	CIC/BOILER/ GUNS	PHM	XO
		PEB	ENG
		DESRON (TAC)	OPS/ASW/MAT
		DESRON (READ/PAC)	MAT/READ/CS/OPS
		SURFRON	MAT/READ/CS/OPS
		PHIBRON (LANT)	OPS/MAT
		PHIBRON (PAC)	MAT

APPENDIX C
CATEGORIES OF PCS ENTITLEMENTS

1. Mileage for privately-owned vehicle (POV).
2. Transportation by common carrier (rail, bus, air, or water, including Military Airlift Command (MAC) and Military Sealift Command (MSC)).
3. Per diem allowance.
4. Actual and necessary expenses and cost of subsistence while in a travel status.
5. Issue of meal tickets in lieu of subsistence.
6. Travel of dependents and transportation of baggage and household goods.
7. Port handling charges for personnel, their household goods, baggage, and privately owned automobiles passing through CONUS Military Traffic Management Command (MTMC) terminals.
8. Payment of dislocation allowances.
9. Authorized transportation of dependents and personal and household effects of deceased military personnel.
10. Costs of contract packing, crating, handling, and temporary storage of household goods.
11. Cost of non-temporary storage of household goods.
12. Cost of trailer allowances.
13. Travel incident to organizational movements.
14. Expenses incident to PCS movement of any military group traveling under one set of orders from the same point of origin to the same destination.
15. Minor supplies and services incident to organizational PCS movements, expenses, allowances incident to separation, discharge, or release.

16. Authorized temporary duty travel directly related to and an integral part of PCS movements.

APPENDIX D

SWO COMMUNITY OBJECTIVES IN REVISED CAREER PATH

Long Term:

- Increase readiness and warfighting capability of force
- Balanced distribution of high quality officers among major departments

Mid-Term:

- Intensify officer professional development in Operations, Combat Systems, Engineering and overall material readiness
 - Develop experience through continuity of assignment to departments
- Maximize mid-grade technical expertise available to commanding officers
- Align afloat career paths with postgraduate education and shore assignments
- Increase PCO course emphasis on tactics and warfighting

Short Term:

- Provide broad base of experience to division officers and increased experience in a discipline to department heads
- Increase training prior to key billet assignments
 - Improve coordination between detailee and command in monitoring qualification process
 - Assign additional officer to ships to offset impact of increased off-ship training
- Develop department head progression from less to more complex assignments
- Educate all levels of Surface Warfare community regarding criticality of total support and acceptance of concept in order to achieve required improvements

APPENDIX E

ANALYSIS OF SURFACE WARFARE OFFICER BILLETS LOCATIONS

The tables on the following nineteen pages provide a detailed breakdown of the geographical location of billets in which SWOs are required to serve. The tables for the nine Non-Fleet Concentration Areas are shown first. They are followed by the tables for the ten Fleet Concentration Areas.

TABLE 28
 CONUS Billets
 (Excepting Fleet Concentration and Washington, D.C. Areas)

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000		1	1			
	1050	1	2	1			
	1110	2	25	50	79	92	40
Sea	Composite	2	28	51	79	92	40
Shore	1000	148	274	395	598	236	93
	1050	65	83	251	144		
	1110	21	94	145	206	13	
Shore	Composite	109	231	267	463	61	19
	TOTAL	111	259	318	542	153	59

TABLE 29
Washington, D.C.

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000	2	1	1			
	1050						
	1110						
Sea Composite		1	0	1	0	0	0
Shore	1000	266	436	440	340	146	8
	1050	112	105	74	17		
	1110	110	151	120	39		
Shore Composite		259	354	158	122	35	3
TOTAL		260	354	159	122	35	11

TABLE 30
Alaska

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050						
	1110						
Sea	Composite	0	0	0	0	0	0
Shore	1000	1	3	4	5	6	2
	1050						
	1110						
Shore	Composite	0	1	0	1	1	0
TOTAL		0	1	0	1	1	0

TABLE 31
Europe

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000		2	1		1	
	1050	2	3		1		
	1110	1	2	5	4		2
Sea	Composite	2	4	5	5	0	2
Shore	1000	45	76	79	69	21	14
	1050	15	26	19	13		
	1110	6	19	23	7		
Shore	Composite	31	59	33	33	4	3
	TOTAL	33	63	38	38	4	5

TABLE 32
Asia

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000	1			1	3	
	1050		1	2	1		
	1110	4	7	10	15	12	9
Sea	Composite	4	8	11	3	12	8
Shore	1000	13	13	32	42	12	3
	1050	5	2	3	2		
	1110	8	22	19	11	1	3
Shore	Composite	15	25	17	21	3	3
	TOTAL	19	33	28	24	15	11

TABLE 33
Africa

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050						
	1110						
Sea	Composite	0	0	0	0	0	0
Shore	1000		3	1			
	1050			1	1		
	1110		1		1		
Shore	Composite	0	2	1	1	0	0
	TOTAL	0	2	1	2	0	0

TABLE 34
Central and South America and Caribbean Islands

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050			1			
	1110		1	2			
Sea	Composite	0	1	3	0	0	0
Shore	1000	12	12	16	26	12	7
	1050	6	10	12	1		
	1110	4	15	15	15	9	3
Shore	Composite	11	23	18	20	11	4
	TOTAL	11	24	21	20	11	4

TABLE 35
Australia, New Zealand and Pacific Islands

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050						
	1110						
Sea	Composite	0	0	0	0	0	0
Shore	1000	3		2	1		
	1050						
	1110		1	1			
Shore	Composite	1	1	1	0	0	0
	TOTAL	1	1	1	0	0	0

TABLE 36
Canada

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050						
	1110						
Sea	Composite	0	0	0	0	0	0
Shore	1000	2	1	1	1	2	3
	1050						
	1110			2			
Shore	Composite	1	0	2	0	0	1
	TOTAL	1	0	2	0	0	1

TABLE 37
Fleet Concentration Area Billets
Newport

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050						
	1110	1	6	11	19	21	14
Sea	Composite	1	6	11	19	21	14
Shore	1000	14	23	31	60	22	
	1050	13	20	9	4		
	1110	5	13	54	105	1	
Shore	Composite	16	31	45	112	5	0
	TOTAL	17	37	56	131	26	14

TABLE 38
Fleet Concentration Area Billets
Norfolk and Virginia Beach

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000		1	4			
	1050	25	6	18	3		
	1110	35	126	218	304	438	469
Sea Composite		46	130	228	304	438	469
Shore	1000	54	87	93	101	43	9
	1050	14	13	10	7		
	1110	31	65	132	69	1	
Shore Composite		57	97	105	91	10	2
TOTAL		103	226	333	395	448	471

TABLE 39
Fleet Concentration Area Billets
Charleston

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050	1	1		5		
	1110	9	33	64	83	113	143
Sea Composite		9	34	64	93	113	143
Shore	1000	6	6	16	23	5	1
	1050	6	8	4	4		
	1110	2	5	7	11		
Shore Composite		7	11	8	19	1	0
TOTAL		16	45	72	112	114	144

TABLE 40
Fleet Concentration Area Billets
Mayport

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050		1	1	11		
	1110	8	38	62	94	130	119
Sea Composite		8	39	63	104	130	119
Shore	1000		2	7	6	1	
	1050	1	1				
	1110	3	1	3	5		
Shore Composite		3	2	3	6	0	0
TOTAL		11	42	66	110	130	119

TABLE 41
Fleet Concentration Area Billets
San Diego

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000			1			
	1050	9	2	9	4		
	1110	33	120	196	287	395	438
Sea Composite		37	121	201	291	395	438
Shore	1000	25	54	70	115	36	6
	1050	10	11	17	17		
	1110	28	58	113	166		
Shore Composite		40	77	93	191	8	1
TOTAL		77	198	294	482	403	439

TABLE 42
Fleet Concentration Area Billets
Long Beach

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050	3		1	7		
	1110	5	26	35	52	61	51
Sea Composite		6	26	36	58	61	51
Shore	1000	2	3	3	4		
	1050	1			1		
	1110		2	3	2		
Shore Composite		1	3	2	4	0	0
TOTAL		7	29	38	62	61	51

TABLE 43

Fleet Concentration Area Billets
Alameda, Oakland, and San Francisco

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050	7	1	2			
	1110	8	19	29	50	86	45
Sea Composite		11	20	30	50	86	45
Shore	1000	6	13	20	24	9	
	1050	3	3	5			
	1110	3	5	5	10		
Shore Composite		7	11	8	14	2	0
TOTAL		18	31	38	64	88	45

TABLE 44
Fleet Concentration Area Billets
Hawaii

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000						
	1050						
	1110	5	16	30	49	58	85
Sea	Composite	5	16	30	49	58	85
Shore	1000	27	53	70	102	44	3
	1050	17	18	12	5		
	1110	5	29	24	16		
Shore	Composite	23	55	29	41	9	1
	TOTAL	28	71	59	90	67	86

TABLE 45
Fleet Concentration Area Billets
Guam

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000					1	1
	1050	3					
	1110		3	2	4	12	12
Sea	Composite	1	3	2	4	12	12
Shore	1000	3	2	9	11	15	
	1050	1	1				
	1110	1		2			
Shore	Composite	3	1	2	2	3	0
	TOTAL	4	4	4	6	15	12

TABLE 46
Fleet Concentration Area Billets
Yokosuka

<u>Group</u>	<u>Desig</u>	<u>CAPT</u>	<u>CDR</u>	<u>LCDR</u>	<u>LT</u>	<u>LTJG</u>	<u>ENS</u>
Sea	1000		2	1			
	1050	2	1	1			
	1110	3	15	22	27	49	63
Sea	Composite	4	16	23	27	49	63
Shore	1000	2	5	7	21	3	
	1050	1	1	1			
	1110	1	2	2	3		
Shore	Composite	2	12	2	7	1	0
	TOTAL	6	28	25	34	50	63

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